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INFANTRY JOURNAL

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Greetings From The Chief of Infantry

Major General Robert H. Allen

THE training required for efficient leadership of Infantry troops in battle is more comprehensive today than it has hitherto been in any period of the world's history.

CONSIDERING the probable effectiveness of the weapons expected to be in the hands of our enemy in the next war, and the high state of development of the arms with which our own troops will be equipped, the leader of Infantry in battle must not only have a very expert knowledge of these means of combat but he must have developed a full understanding of their proper tactical utilization.

THE individual Infantryman must not only possess special technical training but what is even more important for the type of soldier whose main object is to come to grips with the enemy, he must possess a high degree of the soldierly qualities of self-confidence, initiative and resourcefulness—those personal factors which, in the final analysis, determine the victory.

THE Chief of Infantry sends his Holiday Greetings to the Infantry and his best wishes for a New Year in which much more will be accomplished along the above lines than has ever been done before.

Peace Guns

By *Major* William Addleman Ganoe, *Infantry*

IN the most recent issue of *The Writer* was announced the award for the best description in less than 200 words of an American town or city. Singularly, the first prize went to a woman who failed to describe any town or city at all. Instead, she gave voice in very indifferent verse to a conceit of her own—a conceit evidently so very dear to the hearts of the judges that they just could not help yielding her the high vote in spite of injustice to other competitors, who had been imprudent enough to live up to the rules of the competition. In outline, her "poetry" told how her home town had been a peaceful place until the horrid burgesses had set upon the Common a captured German cannon. That deed was the awful turning point. The small boys looked upon this steel mechanism of terror and destruction, inquired about its workings, found out that it had killed fathers of other little boys, and the ruinous seed was sown. War forthwith blossomed in the minds of all the village, which hitherto had worn a face of New England serenity and comfort.

> The efforts of the United States Army have been constructively military rather than destructively militaristic

Beyond the fact that the merit of the writing was not high, there comes insistently the wonder that literary men in the vicinity of Back Bay should be able to sponsor ideas so rickety in their logic, so out of gear with the facts of our present and past national life. That this particular weapon had been captured in 1918 to gain a peace, that the same burgesses had been placing live automatics in the hands of their town policemen long before the arrival of the dead German gun and that American soldiers, heartlessly bearing weapons and hardships in march and wilderness, have consistently been the most prominent gentlemen to ward off war, were a few of the factors discarded in accepting the young lady's rare lines.

This episode is introduced merely as one instance of the red sophistry and sentimental flatulence which seem from press indications to be taking hold of our college and intellectual world. Against forces so insidiously destructive to our nation's life, strength and future, may it not be well to compress some of the present-day activities of our modern Army of the United States into a rejoinder?

Possibly at no time in our history has the Army of our country blended defensive readiness with industrial and civic aid more than in the dawn of 1927. Happily its personnel is as ever eager to avert hostilities or to end them quickly should that great untrained portion of our population do its customary job of getting us into war. The Army in the past year has built staunch enterprises for the progress and tranquillity of the United States

with extraordinary economy. Its efforts have been *constructively military* rather than *destructively militaristic*. It has, despite many obstacles, continued to be our greatest engine of peace, as the following facts show.

ARMY AIDS IN CIVILIAN PURSUITS

Passing over the vast school system of the Army, the most extensive of any institution in the world, where some 400,000 young men in and out of the service are receiving, besides advanced education, bodily vigor, mental alertness, self-respect, self-reliance and a sense of team-work and obligation to fellow men under stern democratic conditions, we find that the nation is reaping the benefit of some 500 military duties which directly prepare soldiers for pursuits in the civilian world of commerce.

The Army, unprompted and unaided, actually performed services for industrial and economic activities of which the average citizen is too little aware. When analyzed to a nicety, a very small percentage of the three hundred and seventy millions of the Army appropriations goes to the Army itself. A few cardinal accomplishments of Army personnel, not generally exploited to the public, will suffice.

Consider the Signal Corps as a beginning. It has operated a deep sea cable between Seattle and Alaska with a net of 37 cable and telegraph stations scattered over the undeveloped land of the far northwest. As a revenue from this source there came as a present to the United States Treasury in 1926 alone over a quarter of a million dollars. In their experimentation with the radio, the members of this corps, with a very small short-wave, improvised, air set succeeded in transmitting dispatches all the way from the Philippine Islands to Washington, D. C. Throughout the year the Signal Corps personnel operated for thirty other departments of the Government the Army communication net, the largest in the world. They have interested, through the aid of the American Radio Relay League, the amateur radio operators throughout the country in opening up a new and vast network of radio channels, as useful in peace as in an emergency. In conjunction with the air forces they have contrived a radio beacon which guides airplanes through fog, clouds and darkness.

TECHNICAL BRANCHES CONTRIBUTE

Similarly the Air Corps has trained civilian pilots and given 1,248 Reserve officers the opportunity of flying a total of 27,851 hours. The Corps developed a parachute which has already saved 29 lives. It photographed in 1926 from the air 35,000 square miles of 18 States, so as to furnish the Geological Survey and other Government agencies with material for maps and map making, a contribution which caused a public saving of approximately half a million dollars. An Army airplane, in reforesting 700 acres of land in the Hawaiian Islands, sowed 700 pounds of three kinds of seed in 90 minutes of flying. When Mauna Loa erupted on April 9, three Army airplanes kept flying over the volcano taking pictures with great danger to the fliers who provided excellent data for Dr. T. A. Jagger, the eminent volcanologist. When serious floods threatened on the Susquehanna near Havre de Grace, Maryland, two Army pilots in De Havilands dropped bombs upon the ice

jam and saved the country from inestimable damage and loss of life.

The Chemical Warfare Service, much misunderstood in regard to the destructiveness of its materials, coupled up with industry in many ways. The fact that 24 per cent of all those wounded by weapons in the World War died, and that only 2 per cent of gas casualties proved fatal, is but an illustration of the humane and constructive work this service is performing for the civilian. Its chemical laboratories are developing each day substances capable of destroying insect pests and of protecting against industrial poisons. At a cost of $106.00 in a large western plant, over $75,000 worth of cloth goods was saved from moths by a single fumigation from one of the discoveries of the service. The damage from marine boring organisms to piling used in the construction of wharves and docks amounts to many millions of dollars annually. A combination of creosote and toxic material prepared by the Chemical Warfare Service has stood the test of three years' imperviousness to under-water pests.

The Ordnance Department, in its metallurgical research, particularly in the atomic structure of steel and its response to various heat treatments, has brought saving and improvement to steel manufacture. Along with the work in allocation and mobilization of industry in technical fields, the department's aid to trade can not be estimated in numbers of less than six ciphers.

WORK OF THE Q. M. CORPS

It may not be generally known that 90 national cemeteries and six national military parks are maintained and improved by the Quartermaster Corps. The cemeteries in Europe, alone, contain over thirty thousand graves. In distress, peril and calamity this corps is practically the only activity in the United States ready to dispense shelter, clothing and food to suffering inhabitants on a moment's notice. Just as a Quartermaster private, during the fire in San Francisco, assembled several hundred refugees, took command of them, organized them into companies, secured eating utensils, put up a field bakery, got flour and baked bread for them; and just as a Quartermaster party in the flood of Brazos Valley, Texas, took lifeboats from Army transports into the harbor of Galveston, rushed them on flat cars to a marooned population and rescued numbers who could not otherwise have been saved; so this part of the Army has responded this year. During the months of September and October it furnished tents, poles, pins, stoves, stove pipes, spark arresters and hoods, upon the request of the Governor of Illinois, for the use of flood sufferers at Peoria, Hillview, Beardstown, Valley City and Naples. Immediately upon receipt of the news of the terrific disaster at Miami, Florida, it shipped 1,600 large pyramidal tents, and a great number of cots to the American Red Cross. Camp McClellan, Fort Oglethorpe, Fort Bragg, Fort Moultrie, Fort Benning and the New Orleans Quartermaster Intermediate Depot rushed shipments by express to the value of over $106,000.00. For this output the War Department has received no reimbursement and conspicuous lack of mention.

Another line of distinct utility is found within the mounted branches of the service which have within them-

selves the only means in the United States of keeping alive the trade of horseshoeing. In commercial life that occupation is dependent upon accidental importation of foreigners or upon our own aged citizens. The civilian blacksmith is disappearing. The only persons in the country who are learning in schools to minister scientifically to the hoofs of some twenty million horses and six million mules are enlisted men in the Army

In the Adjutant General's Department exists a collection of over 5,000,000 finger prints, the largest file in the world. Not only has the operation of those records proved invaluable in administering the tremendous Adjusted Compensation Act for public benefit, but has been a helpful demonstration to all those interested in effective means of identification.

The Medical Department, that agency of the Army which has practically wiped out the terrible scourges of yellow fever and malaria for our country, has placed the venereal rate at a new low level in our history. Since 1918 its anti-venereal campaign has caused a decline for white troops of the remarkable figure of 64.7 per cent. The advances in control of dengue fever, empyema, pulmonary tuberculosis and orthopedic troubles, which this department has made, have prospered health and recovery beyond any estimate of figures.

ASSISTS IN CIVIL GOVERNMENT

It is not generally known that the Judge Advocate General's Department conducted last year the defense of patent suits involving $660,000,000, aided in adjusting settlement of claims against the United States to the amount of $55,000,000, and acted as legal representative for Porto Rico and the Philippines for amounts totaling many millions more. It is estimated that at the low salaries paid Army officers, the Government saves in this department alone a large part of its appropriation.

The Bureau of Insular Affairs has given in its supervision over the Philippines, Porto Rico and the Receivership of San Domingo, a steadily advancing progress to 12,000,000 people. The success of the Dominican Receivership has so far exceeded early expectations that now, 19 years after the proclamation, the treaty has done practically all that was planned for the 50 years of its existence. When Porto Rico was taken over by the United States, nearly 90 per cent of its population were unable to read or write. This year, by the efforts of Army personnel, the number stands reduced to 40 per cent. Never have wages been higher and unemployment less. The Philippine Islands, likewise, under the supervision of Army personnel and governed by a distinguished officer, have progressed in every line of endeavor. The schools were crowded during the last year to their utmost capacity, English became more generally used and the rising acceptance of sanitary conditions on the part of the population caused a steady fall in the death rate. The revenues are three times as great as they were ten years ago and the external trade of the islands has risen from $48,000,000 to $270,000,000. Under War Department control during the last eight years sugar production has increased from 50,000 to 500,000 tons.

Aside from the rivers and harbors

improvements which are entirely committed to the Corps of Engineers of the Army and which require some $60,000,000 from the War Department appropriation, this combatant branch of the service has contributed on its military side to the public. Among other things it has surveyed 736 square miles of the United States proper and 116 square miles in the Republic of Panama and the Panama Canal Zone. Since the technical accuracy of Army engineer maps is identical with the topographical surveys of the Geological Survey, and since engineer personnel map country which other agencies of the Government seem unable to explore, the contribution to public benefit is evident. Besides the large force of this corps engaged on river and harbor work, one of its officers is Governor of the Panama Canal, another is Director of Public Buildings and Parks in the National Capital, and still another is Engineer Commissioner of the District of Columbia.

THE COMBATANT BRANCHES

These are only some of the Army agencies which constantly lend a hand to industry, trade, commerce, welfare, peace. Their value in dollars is inherently striking. But they are in no sense an eclipse of other branches, less noticeable, who also serve, though they but seem to stand and wait. The obscurity such endure is on a par with the security they silently lend. Note the Inspector General's Department, bent upon sympathetic correction and constructive remedies for the dwellers of the smallest post or the inmates of the Soldiers' Home, the Militia Bureau striving to place State troops on a plane of highest efficiency, and the Finance Department saving the government by its canny methods nearly a quarter of a million dollars annually.

Yet even more indistinct than these lie remote from public focus those foundations upon which the very Army rests—the combatant arms. It is difficult to visualize the Coast Artillery straining to stretch its paltry five thousand along the shore lines of the United States so as to be practical protectors of our ports. One forgets the Field Artillery struggling with obsolete weapons, practicing, studying, improving itself to be a capable part of the team, if the call should come. One must exert himself to see our Cavalry negotiating with celerity the rough country of our southwest border, an undertaking incapable of being performed by any other body of our government. And way off there the Infantry at the small end of the telescope—everywhere but nowhere, fundamental but not spectacular.

How could that increase in sugar output and that educational progress have been obtained in the Philippines, Porto Rico and Panama but for the Infantryman and his teammates? How could there have come law and order to the Moro but for the dogged American foot-soldier? Who can say how many forays of banditti have not occurred through the presence of the vidette in the desert of Texas? Could forty-two Citizens' Military Training Camps of 30,000 lads and some 112,000 R. O. T. C. students have received the uplift of sane discipline and physical fitness, had not the Infantryman and his teammates burned the candle of national foresight? For what but for the needs of such a team, struggling to be prepared against war, were all

those beds, tents and foodstuffs in readiness?

Perhaps these facts and queries might disclose a diligence for that kind of peace which transcends a mere faith without works. However that may be, the fact remains that all this Army accomplishment of succor, fitness, staunchness, industry, and culture of character comes to the average citizen for less than a penny a day.

Menacing men who know guns!

The First Recorded Instance of Preparedness

THE first instance of national preparedness in recorded history was when Moses effected the organization of the tribes of Israel in the Wilderness of Sinai along about 1498 B. C. This included the organization of the army for the expected invasion of the Promised Land. It was composed of twelve divisions—a tribe to each division. These divisions were organized into four army corps of three divisions each. One corps was assigned to the advance guard, Judah; two to the main body as escort to the Tabernacle and the Ark of the Covenant, Reuben and Ephriam; and one to the rear guard, Dan. From these designations and the employment of troops we have also the first recorded instance of military tactics.

More than 200 years before this time, when Jacob, the father of Israel, lay upon his death bed in the land of Egypt, he called his sons before him and told them some of the things which he predicted for the future. Of Judah and his descendents he said: "Judah, thou art he whom thy brethren shall praise. Thy hand shall be upon the neck of thine enemies. Judah is a lion's whelp; from the prey, my son, thou art gone up; He stooped down, he couched as a lion, and as an old lion; who shall arouse him up?" (*Gen. 49*). It is submitted as a description of an advance guard commander. And we find the descendants of Judah assuming the rôle in the first army of Moses. Jacob at this time also described Dan in words that might be employed today as appropriate to a rear guard commander. "Dan, thou shall be a serpent by the way. An adder in the path that biteth the horses' heels, so that his rider shall fall backwards." Regarding Napthali, he said: "Napthali is a hind let loose." (*Gen. 49*). In Moses' army we find Dan the rear guard with Napthali in the division designated as the rear party.

Now Moses took no chances on the Hebrew boys volunteering for his army. He "numbered them by their names from 20 years and upward, all that were able to go forth to war in Israel" (*Numbers 1:2-3*). Here we have the first conscription of men for war and a precedent which may not be controverted.

This was the foundation of the splendid army of Joshua which entered the land of Caanan 38 years later and conquered the country in a series of victories, the like of which has probably never been surpassed in military history.

What Gave Birth to "What Price Glory"

By *Lieutenant Colonel* Weston Jenkins, *390th Infantry*

TO the military man who is devoted to the service, there is something profoundly unsatisfactory in "What Price Glory." While it seems to have caught certain aspects of a soldier's life in the war and has presented them in a way that has captured popular fancy, any one who thinks over it twice must realize that there is a superficial quality in the atmosphere created. The real spirit which won the war is entirely missed. If the future safety of the Republic rested on any possible conception of duty, honor, or responsibility as presented in this play, the outlook for our grandchildren would indeed be dark.

> What is the fundamental reason for success of such plays as "What Price Glory"? This article gives an interesting discussion

But it is idle to dismiss its popularity with a contemptuous shrug. There was an immense, widespread appeal in it somewhere. What was it? Was it in the rather obtrusive profanity? There were some who probably got a thrill out of its unexpurgated language, but there must have been more to it than that. Was it because it showed that glory in the old tinsel, copy book form had no existence in a real struggle such as the Great War undoubtedly was? That can hardly be when an army thinks more of its duty than of personal glory, which our army did. Was it some latent form of protest against firm discipline especially when enforced on those who were compulsorily inducted into the military service?

Was it due to that little of the bolshevik there is in all of us reacting against the various compulsions imposed by the war? The most vital compulsion of all was the compulsion to enter the military service.

Now nothing in our military history has proceeded with more smoothness and less friction than the draft in the late war. The evident fairness of the arrangement, the undoubted honesty of its administration, and its lack of exemption for cash which had marred the Civil War application of the principle of selective service, made it find favor in the eyes of the country.

Yet the officers on duty at the camps awaited the arrival of the first increments with many misgivings. We had had experience with volunteers and knew the spirit which animated them. The experience in the Civil War with the draft was of unhappy memory. What would the attitude of the present selected men be? Would it be a sullen acquiescence? Would military knowledge and discipline have to be hammered into unwilling recruits?

It turned out to be nothing of the kind.

No one could ask for a better spirit. To some it was a hardship to be taken away from their families and inducted into the Army, how real a hardship only they and those who censored their letters know. But no one could cavil

at the spirit they showed. Rich and poor, bright and dull; American, Pole, Italian, and German, they were the chosen. It was theirs to defend their native or adopted fatherland, as the case might be and they threw themselves into the spirit of the game with all their heart. It was the high spirit of the crusader. There was an eagerness to learn the business of war, not for war itself, but for the high ends involved, which was an inspiration to all who came in contact with it. As the British officers said of one of our metropolitan divisions when brigaded with them, "Your men are so keen, don't let them lose their keenness." And they used "keen" in the sense of ardent and enthusiastic.

KEENNESS AMONG OUR SOLDIERY

No one can compute what that "keenness" was worth. No one knows how many desperate ventures were dared, how many unseen acts of bravery were inspired, by the inner compelling force of that keenness. It has carried the fame of the American soldier into every land. It has impressed a wholesome respect for the fighting quality of our Army upon the whole world.

Yet for years after the Armistice when our Army was demobilized and silently melted away into the nation again, what did we find of that "keenness"?

He who honestly looked into it found that it had soured and turned bitter. The fine high idealism and the ardent enthusiasm had disappeared, and a certain resentment had taken their place. Part of it was probably due to the hypocrisy which creeps into men's souls in times of inaction following upon intense military activity. Some have tried to explain it as disgust with war and disillusionment with respect to war aims. But it was more than boredom, and less than dissatisfaction with the national policy.

It was resentment at the character of our military discipline.

Articles which appeared in the *American Legion Weekly* and other magazines, gave vent to a feeling which was all but universal. An antipathy to former officers holding office in certain ex-service men's associations, pointed to the root of the trouble. We may not like the bare fact but no one who is well informed and honest with himself will gainsay it.

So let us look into it dispassionately, see whether it was justified or not, and if it was, see if there is a way to overcome it in the future without detriment to the military values involved.

THE DEFERENCE TO RANK

By the average inducted man the fault was laid at the door of officers in general. They thought the deference to rank overdone and the insistence upon saluting degrading.

The average temporary officer was apt to blame the Regular officer and what he thought was his overbearing assumption of superiority, while the Regular put the trouble on the shoulders of the temporary officer and his inexperience.

There was something to all of these charges. The inexperienced officer hustled from his office, given a sketchy training and then presented with two hundred and fifty green men, had to work hard to keep one jump ahead of the game. He was unfamiliar with his job, a little uneasy in his new found authority, nor was he accepted fully by his Regular brother as a real, full-

fledged officer. So he can hardly be blamed for making some mistakes.

The Regular officer had been used to well organized units with experienced noncommissioned officers to handle the comparatively small number of recruits. New officers were absorbed into the system in small doses and generally with fine previous training. The continuing establishment was large enough in proportion to the small number of accretions to absorb them without shock. Promotion was slow and the profession a life work. Was it any wonder that the Regular looked impatiently at the obvious blunders and lack of familiarity of essentials upon the part of temporary officers holding rank it had taken them years to attain before the war?

OFFICERS AND SOLDIERS NOT TO BLAME

But upon careful reflection these matters will be discarded as not being the source of the trouble.

The temporary officers were of the best material available. They worked hard and faithfully to perform their duty and did their best with the training furnished by the Regular establishment, which was the only training they had. And it was a good best. Together with the finest soldier material in the world and with clear-sighted, high leadership, it won the war in spite of inexperience.

Nor can the trouble be saddled on the Regular officer. He was the source of all instruction and military tradition. Close association with him after the war develops the very highest respect. His character, devotion to duty, and personal likeableness are all of a very exceptional order.

Moreover, we cannot blame the man in the ranks. Some would say that American youth is impatient of discipline and any way it takes years to make a soldier. The facts are that in the future our wars will be fought with American youth of exactly the same characteristics, and we will not have a year in which to train them. So a system must be devised to take these young men and make them into soldiers in a few months. Moreover, it must make them into willing, "keen" soldiers who will retain their keenness and submit to their discipline not only willingly but proudly. Anything less is an insufficient solution to the problem presented.

FAULT LIES SOMEWHERE IN SYSTEM

Now if the fault does not lie with either the Regular or temporary officer nor with the enlisted man, where does it lie? Some fault is certainly there when a disbanded army has a grouch as ours undoubtedly had. If it is not in the personnel it must be somewhere in the system itself.

The Army has already taken up the task of supplying additional officers trained for their job, and is making progress with it. The development of the Officers' Reserve Corps and the Organized Reserves, while hampered by lack of funds, is constantly training a large number of officers who, in a time of emergency will step quietly into the expanding military machine. Being used to their authority as well as being trained in the technique of the profession, they should be able to acquit themselves creditably.

The Regular officer, too, is being benefited. Instead of handling nothing but well-trained, long-service units, he is being called upon to train thousands of green boys each year in the Citizens' Military Training Camps. He

is detached for duty with the Reserve Officers' Training Corps in colleges, and with the Organized Reserves, where tact and leadership instead of mere authority are necessary to gain results. He has many more civilian contacts than he did before the war and the result is that he understands the civilian viewpoint better than ever.

It is reasonable then to assume that these two of the factors which will affect the morale of our next great army will be an improvement over what they were in 1917 and 1918.

THE RANK AND FILE

There remains then the third factor. The rank and file of the Army: men who will be suddenly snatched from the farm, the office, and the factory, and thrust into the unfamiliar atmosphere of an army. There will probably be a minimum of time in which to train them, and unless every element is arranged to facilitate their adjustment to the necessary hardships and restrictions of military life, there will be soreness again.

Not only that, but there will be a lowering of efficiency under what could be accomplished were the conditions the best possible. A willing mental attitude will adjust itself to the new environment and absorb instruction and discipline much more rapidly and permanently than one which does not understand and is full of repressions and maladjustments.

As it will be impossible to get the time to change the individual until he is adjusted to the environment, we must arrange the environment to facilitate the adjustment in the time available.

But—where shall we start?

With the discipline?

What is the matter with the discipline?

DISCIPLINE AROUT THE WHOLE THING

Ask the average ex-service man if he liked the discipline of the Army and he will laugh at you. Yet discipline is about the whole thing in an army. It is the foundation of the whole structure and is the fundamental distinction between an army and a mob. We tell the men they should be proud of it. Our last attempt to make them proud of it produced "What Price Glory." A result which was certainly not contemplated by those in authority.

But the task is not impossible. Old timers understand and are proud of their discipline. It is suggested that it is possible to so arrange matters that the short service man will understand and be proud of his discipline.

The present system of discipline in our Army is an outgrowth of the teachings of Baron von Steuben, our first real drillmaster. The Baron was a Prussian officer, trained in the army of Frederick the Great. In fact he had been an aide on Frederick's staff. The system he introduced into the starving, barefoot army at Valley Forge was the system of Frederick's army. So our system today is a direct descendant of the Frederician tradition. It has been modified and changed, of course, but it still has its roots in the ideas of the drillmaster of Potsdam. How rigorous and merciless it was in the days of the great Frederick is well known.

The somewhat modified version that the Baron introduced into our Army had its unpleasant side too, as the records of the punishment show. No doubt it was suited to the time and place and certainly it worked wonders in the efficiency of the Continental

Army. Perhaps the real kindness of heart which the old baron carried under a peppery exterior helped take the edge off its severity. Perhaps the somewhat definite divisions of society in those days made it seem more natural. Whatever it was, there seemed to be in it a certain lack of appreciation of the intelligence and good faith of the man in the ranks which is not suited to present day ideas.

OUR SYSTEM HAS NEVER FAILED US

Yet it is an exceedingly dangerous thing to tamper with the system of discipline which we have built up. It has never failed us in the hour of trial. Any army that we have raised and thoroughly disciplined in this system has been victorious. More than this, individual units thoroughly disciplined have stood unmoved in the midst of a general rout of less disciplined troops. Sykes regulars at Bull Run and the naval battalion at Bladensburg are classic examples. Such troops disciplined in this system can be exterminated but they will not be routed.

Armies are not raised to go to pink teas, nor to be demagogic experiments in democracy. They are raised to defend this democracy and its principles in time of great stress and bring peace when other means have failed. Anything weakening their power, by just that much endangers the safety of our country.

So anything we do must be done carefully for it may upset long established and successful experience. Yet it would seem that there are some things which can be done,

For instance: Why does the average ex-service man hate the mention of discipline? Simply because the word is associated in his mind with punishment. We tell him that discipline is the one thing he must strive for and be proud of and then we take away his leave of absence and also call it discipline.

There are a number of meanings to the word. There is the military meaning which signifies coordinated obedience and that subconscious self-control whereby the individual becomes a part of a smoothly working machine. It includes deference to superior authority but is by no means inconsistent with self-respect and poise.

SEPARATE THE PUNITIVE ELEMENT

Then there is the punitive significance of the word, the restrictive measures taken to enforce this discipline. The word coming from the same root as disciple has other meanings such as, instruction, training, etc., and Washington Irving in his "Life of Washington" uses the term to cover an officer's concern in the welfare of his men. These other meanings seem to be falling into disuse in military terminology and the two senses of the word, i. e., the systematic obedience, and the punitive, alone are retained.

How can we take a raw recruit and expect him to love and honor *discipline* when it is immediately connected in his thoughts with disagreeable punishment? It is bad psychology. Old timers subconsciously separate the two meanings and understand it but the average rookie does not.

Why not make it perfectly clear to him from the start, by using the word "discipline" only in its fine military sense of systematic obedience and self-control, prohibiting its use in the punitive sense? There are plenty of words which cover the other meaning such as "punishment," "restrictive," or "cor-

rective measures will be applied," and so forth.

It is believed that the way to reform our system of discipline is along these lines. That is, carefully to rearrange our procedure, terminology and customs so that the raw recruit will be assisted to understand what it is all about. The American soldier will do anything, go anywhere, and suffer any amount not only with patience but with enthusiasm when he understands why it is necessary, but he sets up a strong resentment when he feels that he is high-hatted; however, duty may lead him to repress it temporarily.

Perhaps the fact is that there is nothing wrong with our system of discipline. It is a fine system. It has stood the test of time and has never failed. It is the safeguard of the Republic. He who tampers with it is treading on dangerous ground. But there must be more than a lip service to firmness, kindness, and justice on the part of superiors. Up-stage methods must give way to real leadership, and respect must be reciprocal from high rank to low as well as from low to high.

PROCEDURE SHOULD BE CHANGED

What should be changed is not the essence of the thing itself, but certain methods of procedure which tend to confuse the real issue, and beyond anything else that invisible, yet most potent factor of all, the customs of the service. If we can help raw levies to understand what discipline really is and the necessity for it in an army, if we can keep him from confusing it with punishment, if he understands what the salute is and why, if he appreciates that the hierarchy of command is not an institution for the beautification of individuals but a military necessity, then he can be brought to feel that it is one of the finest things in the world for a free people to assume the rigor of discipline and sacrifice to defend their native land and the "What Price Glories" will lose their appeal.

The American soldier does not want to be babied nor coddled. He does not admire weak or favor-currying officers. He takes pride in an officer who has snap and exercises his authority with firmness. He admires a certain grim, curt efficiency provided it is free from any suggestion of high hat and he loves it when behind it all is a faint relieving twinkle of humor and human understanding.

Answering the question which heads this article it is submitted that what gave birth to "What Price Glory" was the not unnatural misunderstanding on the part of our war-time Army as to what discipline really is.

A careful and sympathetic study of the question should lead to methods which would not only remove the sources of soreness and discontent in the future and cut down considerably the time element in training and disciplining new lives, but also lift the Army tremendously in public esteem.

Inadequate Pay of Second Lieutenants

By *Colonel* E. G. Peyton, *9th Infantry*

ON May 3, 1808, Zachary Taylor entered the Regular Army as a lieutenant of Infantry. In 1846 this same lieutenant became the commander of the early expeditionary forces in Mexico and later became the President of the United States. By virtue of seniority and special assignment General Winfield Scott, who had entered the Army as a captain of Light Artillery in 1808 took over the command of the armies in Mexico. Other distinguished commanders, who had entered the Regular Army as lieutenants about the same time became the most dependable assistants to the commander-in-chief in the Mexican War, which was characterized by its uniform series of tactical successes. In 1843 Ulysses S. Grant entered the Regular Army as a second lieutenant of Infantry, and after serving through two junior grades returned to civil life. He subsequently commanded the Union Armies during our Civil War and later became the President of the United States. He was assisted in his great mission of preserving the Union by skillful commanders of high rank who had likewise started the development of their command and leadership abilities as second lieutenants. The difficulties of preserving the Union were immeasurably increased by the skillful Confederate commanders, who had also started their soldierly development as second lieutenants of the Regular Army. In the year 1886, John J. Pershing entered the Regular Army as a second lieutenant of Cavalry and by his rapid and outstanding development as a "decision maker," leader and organizer, he became the logical selection for the command and leadership of our great American armies in France.

> The second lieutenant of the Army today receives a pay that is incommensurate with the present high costs of living

Through environment and the character of their varied frontier service, these second lieutenants started their development as leaders and decision makers unhampered by the difficulties of measuring up to exaggerated standards of living and freed from the numerous individual worries connected with the inadequacy of pay. They participated actively in the accomplishment of actual military missions, connected with the advance guard of civilization in its westward march. With experience as their teacher, wherein tactical decisions were a daily part of the course, tactical skill and leadership were developing with rapidity to a high degree. While civilization was pushing westward or was temporarily halted in bivouac the second lieutenant of the advance guard and the outpost needed but little more than shoe polish, a clothes brush and a minimum wage to enable him to measure up accurately to the standards of living and appearance of frontier days.

Now that civilization has completed

its westward march and is making its further development in permanent quarters, the advance guard and the outpost have become the interior guard with the stricter requirements as to appearance, neatness, turnout, and to the higher standards demanded by the Government as well as by the people and the guard itself. The second lieutenants of this interior guard—the junior officers today and the potential commanders and leaders of the future—labor under tremendous disadvantages in trying to meet the much higher standards of living of modern life, on a wage that has shrunken 60 per cent in purchasing power since 1913.

The energetic young gentleman in any profession can contend with the starvation period incident to establishing his special worthiness among those interested in the employment of his professional services. He can gracefully and without loss of prestige retire for a time from social demands and strengthened by determination he can extend his professional studies and bend his energies towards rapid advancement in his chosen profession. Without an agency to select his clothes and to dictate the wearing thereof, he can use his early starvation wage for shelter and food in the preservation of health, while he concentrates unhampered mental effort in the practice and the planning of professional accomplishments.

THE INITIAL COST

It is an entirely different state of affairs with the young man entering the commissioned ranks of the Army. In addition to food, there are other items which the new second lieutenant must provide himself with, and which may be called exceptional articles. These are items of limited consumption, consequently limited in production and which always occasion higher prices. The uniform clothing and equipment of an officer fall under this classification. The blue uniform has been eliminated, but still the initial expense is not light as an estimate shows. The second lieutenant must have two woolen uniforms at $55 each; four cotton uniforms at $22 each; one cap at $8; one service hat at $10; one overcoat at $75; one Sam Browne dress belt at $15; one Sam Browne field belt at $7.50; one bedding roll at $12; one raincoat at $25; one pair of dress boots at $40; two pairs of puttees at $15 per pair; two pairs of shoes at $10 each; one saber at $15; one pair of field glasses at $65, and gloves, spurs, insignia, and other incidentals making the total necessary outlay around $600. This initial outlay is for his person alone and he is compelled to have it before entering upon his duties. When we consider the additional sum necessary to fit his quarters for comfort and study in the interest of professional improvement, the initial outlay easily approaches $1,000.

The master sergeant of the first grade is a better paid man than the second lieutenant. The Government furnishes a sergeant his uniforms and equipment and by commutation of these items he draws but 25 cents less than the pay and allowances of a second lieutenant. If we deduct the initial outlay required of the second lieutenant from his salary, the master sergeant's pay is much greater. After four years the master sergeant's pay and allowances exceed those of the second lieutenant by $6.05 per month, and this advantage continues until the sec-

ond lieutenant has five years' service and is approaching thirty years of age. Undoubtedly the framers of the law embodying this pay schedule had in mind the protection of the Government from financial loss in the cases of second lieutenants who do not elect to remain permanently in the service.

USUALLY GOES INTO DEBT

Without questioning or reflecting upon the sincere motives of the framers of the pay law, it is apparent that the practical application of the law and the initial indebtedness forced upon the second lieutenant are suggestive of peonage, against which Federal statutes have been enacted, in that the youngster must slave at and contend with his inadequate and unlivable wage in order to remove the burden of debt from his shoulders.

In this connection it seems pertinent to call attention to another fact that is lost sight of. The United States Military Academy inspires its young graduates with the noblest spirit of service, to be rightfully and honorably fulfilled without regard to pay and emoluments. The young second lieutenant strives manfully to maintain himself on his inadequate wage for the first five years knowing that, when his pay is then increased, the greatest obstacle to perfect service to his country has been removed. To say the least, it is thoughtlessly unfair to commercialize, in favor of an economy program, the tenacious spirit of service inspired by our great national academy.

MARRIAGE DISCOURAGED

Another thought no doubt aided the framers of the law, due to inadequate housing facilities and limited funds for transportation, further economies could be accomplished by denying or discouraging, through elimination of a ration allowance and by providing a starvation wage, the marriage of second lieutenants. The laws of God, nature and of our country have not been and cannot be rendered inoperative by Army legislation. Love in its blindness has fostered and is still fostering the marriage of second lieutenants, with the result that the inadequate wage has almost robbed his mind of ability to think and meditate in terms of his profession, due to the constant fear that the check stub total will exceed the balance on hand.

EFFECT ON EFFICIENCY

No man in whatever walk of life can be judged wholly successful and independent, whose annual expenditures exceed or just balance his income. The cornerstone of individual economic independence is based on the ability to put aside some portion of the income. With a deficit to be met in part the first month after reporting for duty, the mind of the new second lieutenant can not operate at full capacity and the potential leader and decision maker of the future is hampered in his professional development by his inadequate pay. On June 30 of each year an efficiency report is made on each officer of the Army. Section H of that form requires the commander to report upon the personal characteristics of the subaltern and it can be definitely shown that inadequacy of pay retards the development and rating of the second lieutenant in each of the items listed.

1. *Physical Activity.* If there ever is a time when an officer is capable of great physical activity, it is during the youthful period he puts in as a second

lieutenant. While physical activity really means agility and ability to work rapidly, normal peace-time duties do not sufficiently develop this capacity. Additional athletic activities are essential, but the expense of membership in the country club and expense incident to riding and mounted sports deny him the helpful pleasures of golf and polo. The care he must exercise in the preservation of expensive uniforms not yet paid for hamper him in participation in other athletic sports.

2. *Physical Endurance.* Peace-time training rarely tests the physical endurance of an officer. The physical endurance must therefore be estimated from the physical activity of a second lieutenant and when by reason of inadequacy of pay he is marked down on physical activity, it follows that his estimated rating on physical endurance will be low.

3. *Military bearing* and *neatness* of a high order is expected of all officers. The highest ratings are given for the best uniforms and smart appearance, as well as for erect carriage and dignity of demeanor. It is obvious that advanced rating under this item requires an expenditure of personal funds beyond the capacity of the second lieutenant.

4. *Attention to Duty.* The trait of working thoroughly and conscientiously, requires concentration on the duty at hand as well as thorough preparation therefor. This concentration and preparation is usually seriously affected by worries incident to debt and other disabilities pertaining to inadequate pay. Proper attention to duty is also best accomplished when the mind is possessed of the alertness incident to wholesome physical activity.

5. *Tact* is really the capacity for being agreeable. Any great advancement in the development of this trait can only be made by social intermingling with comrades and friends in civil life. Chances for this development are greatly curtailed by the isolation forced upon the second lieutenant by his inadequate pay. From his viewpoint the acceptance of social courtesies that he cannot return is a species of graft, and inconsistent with his social standards.

INITIATIVE AT A STARVATION WAGE

6. *Initiative* is considered a normal American characteristic but its higher development in an officer is a great military asset. The development of initiative on the part of the second lieutenant requires considerable thought and study; he must analyze, carefully, present procedure and initiate improvement thereon. Such careful thought and study is likewise hampered by the many mental worries and interruptions to study that accompany the starvation wage.

7. *Intelligence* of the second lieutenant has been given a basic test before he was given his commission. It is the ability to understand readily and the further development of this trait hinges upon the ability thoroughly and studiously to dissect that which is understandable. The second lieutenant's progress in the further development and exercise of intelligence is hampered by overcrowding the mind with destructive thoughts, which would not pertain, if his pay were adequate.

8. *Force* is largely a natural characteristic more highly developed in some officers than in others. It is the faculty of performing duty with energy and resolution, and that energy and resolution must be thoroughly di-

rected towards the right objective. If thought and study have not been expended in determining the proper course to the right objective, weakness instead of force results. It follows, therefore, that the same inadequate wage that retards thought and study essential in the development of other attributes, likewise hampers the second lieutenant in proficiency, energy and resolution towards the proper objectives.

9. *Judgment* and *common sense* is measured by the ability to think clearly and arrive at logical conclusions. The obstacles to study and thinking clearly due to the second lieutenant's wage have been pointed out. Judgment and common sense can be further developed by his social intermingling with comrades and intellectual friends and acquaintances in civil life, wherein the results of his clear thinking and logical conclusions may be tested by expressing them to the more experienced. Obstacles to such social intermingling, due to inadequate pay, have already been pointed out.

LEADERSHIP AFFECTED

10. *Leadership* is the capacity to direct, control and influence others in definite lines. It involves constant study and careful, thoughtful effort to accomplish the most difficult of tasks,—the solution of the human engineering problem pertaining to the individual man. An extended study of human nature is involved and this can be accomplished only by social and other intermingling with his fellow man. It has been mentioned how the inadequate pay of the second lieutenant prevents this. Under the strenuous code set forth in the Articles of War for the government of our Army it is easier to be a man driver than a leader. If, by reason of his inadequate pay the second lieutenant fails of opportunities to solve the human engineering problems pertaining to the individual man, he becomes and continues to be a man driver, and thereby adds increased cost to the upkeep of the Army by the desertions he causes, and the difficulties he places in the way of recruiting.

In time of war when the Army expands for active field service, the second lieutenant is suddenly jumped one or two grades in rank, and given the responsibility of training for service and leading in battle an increment of our citizens. It is unfair to those citizens to deny them the best and most accomplished leadership. Such leadership cannot be expected of the officer who has been retarded in his early professional development through causes over which he cannot exercise control. An investment made now, in the interest of preparedness of providing an adequate and livable wage for second lieutenants, will permit their full professional development to start now and the war declared when they are the commanders, trainers and leaders of our citizenry will be won in a minimum of time and with the least expenditure of lives and treasure.

Our Naval Bases in the Pacific

By *Lieutenant Colonel* J. M. Scammell, *Inf., Cal. N. G.*

"A NAVAL base," says Mahan, "is an element of sea power. It may be no less determinative of a naval issue than the fleet itself, because it is essential to the fleet." One has only to see a ship in drydock to understand how essential a naval base may be. There one may see the workmen on scaffoldings scraping from the hull a long and heavy growth of marine life, both vegetable and animal, which multiplies the resistance of the vessel in the water, thereby increasing its fuel consumption as well as decreasing its speed. The effect of these barnacles and weeds upon the power of a vessel is almost incredible. In a light cruiser it will result in a progressive loss of speed averaging at the rate of one knot per month. However, under unusual conditions, depending upon the place and time, this rate may be much greater. The old *Columbia* once when only six weeks out of drydock had her speed decreased from 20 to 13 knots within that period! During the war the German raider *Emden*, despite such scrapings as could be managed at sea or in port without the aid of a drydock, lost 50 per cent of her speed, dropping from 22 knots to 11.

> The best insurance that the United States can obtain against a war being started against us by any nation is to give it no reasonable hopes of victory

What this condition means in terms of fuel consumption may be judged when it is realized that a ship having 100,000 horse-power may attain a speed of 30 knots using only 50,000 horse-power; but that to increase this to 34 knots will take another 50,000 horse-power! That is to say, a ship with a foul bottom, in order to keep up with a fleet steaming at economical cruising speed may have to use her full power at an enormous expenditure of fuel to do so. To perform her duties at all she may have to use full power. It would probably be a safe and fair statement to say that the amount of fuel required by a ship having a bottom foul enough appreciably to reduce her speed would amount to the cube of the normal amount. In other words, the radius of such a ship would be decreased to the point where she would be utterly useless in a campaign where the distances between ports is as great as it is in the Pacific. Moreover, the loss of speed would in many cases be so great as to make some of our ships useless in a fleet action.

At the fleet base we may see boilers and machinery being repaired and stores and ammunition being taken on. Fuel, food, powder, clothing and other naval requirements cannot be harvested from the deep nor manufactured at sea from the air; they have to be renewed from the shore or the ship cannot keep at sea; and the place where this is done is called a naval base. The owner of an automobile readily understands the function of filling stations and garages; but the naval base does

even more than these: it is in addition the driver's home to which he comes for food and sleep and relaxation. The naval base cares not only for the lifeless machines, but for the living crews as well.

And if all this is so necessary in time of peace, in war it is even more so, because of the many, great, continuous and extraordinary strains which all kinds of weather, the shock of the explosion of big guns and continuous steaming at high speed, put upon the delicate machinery and instruments which go to make up a modern ship of war. In addition, the extensive use of mine-fields, of torpedoes, bombs and long-range guns exposes these ships continually to serious damages which have to be repaired. Perhaps half of these injuries may have little or no military significance; but one single hit may put a vessel entirely out of action if it is in a vital spot; this was the case with *H. M. S. Lion* in the Dogger Bank action. One torpedo hit, unless a singularly lucky one, might merely reduce the speed of a battleship from three to five knots; but one torpedo hit almost anywhere on a light cruiser might completely destroy its value as such, so reducing its speed that it may fall an easy victim of a more powerful antagonist. As a rule, ships seriously damaged cannot be expected to steam more than 500 miles for repairs, which is one factor regulating the distance which should exist between bases. The naval bases of Japan lie well within these limits. The maximum distance between bases is 750 miles. The United States Navy would consider itself fortunate if it had adequate bases in the Pacific even 2,000 miles apart!

Mahan says that, "A ship that has to go but 50 miles to reach its field of operations will do in the course of a year the work of several ships that have to go 500. Fortified naval depots at suitable points therefore increase numerical force by multiplying it." Moreover, the normal advantage must be taken into account; says Admiral Bubnov of the Imperial Russian Navy: "If the fleet can give battle close to its shores its action will be more resolute and free because of the certainty of the damaged battleships reaching docks."

PROXIMITY OF NAVAL BASES

It was partly for this reason that Admiral Jellicoe refused to accept battle with the German High Seas Fleet in the lower reaches of the North Sea, because it was 500 miles from the main base of the Grand Fleet; and in this policy he was supported by the admiralty and by the British government. Hence Admiral Bubnov declares that a theatre of war can "be considered as being adequately prepared from a strategical point of view when it is surrounded by a network of bases less than 500 miles distant from one another."

The situation of the Japanese bases meets this requirement; indeed; no better illustration of this can be found. It would require a lengthy and highly technical description fully to describe the wonderful strength of the Japanese defensive position. Perhaps the most satisfactory way in which briefly to give an inkling of the situation is to quote the opinion of a Japanese naval officer who has been retired in disfavor because he has had the temerity to point out that the defeat of the United States Navy by that of Japan might be attended by greater difficulties than

the Japanese admiralty at present believes. Captain Mironori says:

It is our firm belief that so long as the Japanese navy maintains its present strength and does not venture on reckless tactics, the American Navy will be unable to do anything against Japan except make aerial attacks.

Naval Bases in the Pacific

JAPANESE BASES

Let us see what it is that warrants this supreme confidence. Aside from the Japanese superiority in light cruisers, battle cruisers and modern submarines, at Sasebo, Kure, Maizuru and Yokosuka they have a complete set of perfectly equipped naval bases, able to repair and supply the entire Japanese navy. At Sasebo there are three drydocks, including one floating dock, capable of taking ships up to 50,000 tons displacement. At Kure there are two drydocks and a Maizuru there is one; Yokosuka has two. This makes eight drydocks known to exist, and there are two more reported whose existence is in doubt. Admiral Bubnov sums up the situation by saying:

An abundance of docks, repairing stations and private shipbuilding docks with ample means of working at full strength ensures the possibility of the Japanese fleet recovering its strength after action very much quicker than

any enemy in the Western Pacific could ever hope to do.

And as yet we have mentioned only the first-class naval bases. Fortified bases capable of undertaking minor and emergency repairs to battleships and of taking complete care of smaller craft exist at Ominato and Shinkai. There are fortified advance bases at Dalny, on the island of Formosa, and in the Pescadores Islands where, on the island of Bako a mining station is located. There are, moreover, at Tsushima Island, at Chinkai in Korea, at Nagasaki, in the Kurile Islands and in Sakhalin, actual or potential flotilla bases. In the Loochoo Islands and along the Korean coast there exist many excellent temporary shelters for destroyers and submarines. The mandated islands reaching 2,000 miles out across the Pacific contain many small bays and lagoons useful for basing submarines, aircraft and minelayers. These may serve also to give warning of the approach of enemy forces, to harass them, delay and weaken them. By virtue of the provisions of the Treaty of Versailles under which Japan holds title to these islands, she is forbidden to fortify them or to create naval bases there.

There have been rumors that the Japanese have violated this prohibition, at least in spirit. Admiral Bubnov evidently so believes although he speaks guardedly as follows:

> Japan is doing careful work in preparing *points d'appui* in every one of the three strategical sectors. . . . This work is being done in the Bonin Islands belonging to Japan, on the Group Saipan in the center of the Marianne archipelago, and in the Bay of Angaur in the middle of the Pelew Islands which lie on the route of the United States Fleet to the Philippines.

But it must be plainly and frankly stated that no reliable evidence has ever been produced in support of such statements and that in the United States the good faith of Japan remains unquestioned. However, in this country neither are the forethought or the efficiency of the Japanese military and naval authorities questioned; and it is recognized that almost instantly upon the outbreak of a war more than one of these islands could be turned into a strongly defended naval station.

JALUIT'S PROXIMITY TO HAWAII

There is at least a potential naval station at Jaluit which is as near Pearl Harbor as the latter is to the United States. It is true that in the Washington treaties Japan agreed not to fortify further Formosa or the Pescadores Islands; but these had already been sufficiently fortified. Altogether, therefore, Professor J. Q. Dealey, an American authority on international affairs, said no more than the plain truth when he said that, "The whole area specified in the nonfortification provision virtually becomes a Japanese sea and sphere of influence."

It must be insisted that this is no mere rhetorical statement, but the expression of an incontrovertible reality. Guam, for example, has a weak battery, some small field guns and a mere handful of Marines to guard the anchorage at San Juan d'Apra and the oil stores there which in time of war would be burned under Japanese boilers. How could we hold Guam? It could count upon no help from our nearest base at Pearl Harbor, for Hawaii is 3,300 miles away and has no strength to spare. Therefore, Guam is 5,400 miles from the nearest aid; but it lies only 1,500 miles from the

very heart of the Japanese military and naval might.

BASES IN THE PHILIPPINES

The Philippines are in no better plight. This is what Admiral Bubnov has to say:

From Formosa Japan sees the weak base, Cavite, which points to the truly pitiable and insignificant power of the great trans-Pacific Power, the owner of the Philippines. . . .

As a matter of fact, Cavite cannot even be considered as a base in the strategical sense of the world. It is rather a mere anchorage.

This is no exaggeration. Our naval installations in the Philippines are divided between the workshops at Cavite on Manila Bay, which are capable only of supplementing the repair work done by the crews of our ships, and the floating drydock *Dewey* at Olongapo. Now Olongapo is undeveloped and undefended. Since the drydock cannot be defended at Olongapo and cannot be used at Cavite, unless we destroy it, the moment war be declared, it becomes merely an additional Japanese drydock. Such are our naval facilities in the Philippines. They are not such as to enable the Fleet to operate from there, and unless it is able to do so, we cannot hope to defend the Islands. We have a combined American and Filipino force of about 15,000 men nearly 7,000 miles from aid and only about 750 miles from the nearest Japanese base. Our agreement not to fortify the Philippines has definitely established the fact that we cannot defend them. Sir Herbert Russell says:

Japan's first obvious move—and a pretty easy one—would be to seize Guam and the Philippines. . . . The immediate effect of this action would be to deny to the United States capital fleet any base for which to make.

Hector Bywater quotes an American naval officer as saying:

The Philippines are there for Japan whenever she likes to take them, and nothing can prevent her from seizing them when she feels disposed to do so. As at present circumstanced, we could do nothing whatever to protect them in time of war. If we were foolish enough to locate a fleet at Manila, the history of Port Arthur would repeat itself with us in the rôle of the Russians.

To speak of sending an expedition to retake the Philippines, as public opinion would urge us to do, would present most serious aspects. Let us consider the problem of fuel alone. From the Panama Canal to the Philippines a fleet would require some 20 fuel ships carrying 150,000 barrels of fuel oil. That, in addition to what the ships could carry in their bunkers, would get them there; but it would not enable them to move after they got there. To operate for a month a total of 200 ships carrying one million tons of oil would be required.[1] It would take time to produce, assemble, man, load, and organize these ships and to train them in their war duties. The entire fleet would have to be mobilized and made ready for battle before they could be convoyed to the Philippines. And this is only the one problem of fuel; the problems of supplies and repairs for the fleet would have to be solved; transports, supply ships and munition ships would be required to transport at least an army corps. These titantic problems might be solved; but the cost would be terrible in money and ghastly in lives.

[1] These figures represent only author's own rough estimate.

These are some of the considerations which have led Admiral Bubnov to say:

We consider it correct to assert that the actual fighting power of the United States and the Japanese fleets is not accurately described by this (the 5-5-3) ratio. In the Western Pacific this relative strength approaches the ratio of 4 to 3.

DEFENSE OF OUR COASTS

The Japanese navy, therefore, has no little justification for believing that it may safely undertake to measure strength with that of our Navy in the Western Pacific. Capt. Harris Laning, U. S. N., recently stated that "with a greater interest in the Western Pacific than any other nation except Japan we have never developed a proper base in the Philippines, or even a base at Guam or Hawaii that would enable our fleet to move to the Philippines;" and, referring to the provisions of the Five Power Pact which forbids us to develop bases in the Far East, he goes on to say that, "In face of that fact we are still doing nothing toward creating a base in the Hawaiian Islands that will make it possible for our fleet to advance beyond them, or even on the West Coast, to operate from there."

And so the question is now no longer whether we can uphold our policies abroad as much as it is, "Can we even defend our own coasts?" Although, as a matter of fact we have not now the facilities to enable us to do so, it is probable that in time of war the ingenuity and energy of the American people would find some way in which to safeguard them. To be sure, this is neither a wise nor an economical way of performing a vital public service, but it is not the intention of the writer to be an alarmist or to misrepresent the situation. Nevertheless our naval situation on the West Coast may be said to be really critical. Admiral Eberle, Chief of Naval Operations, has stated that our frontier from Alaska to the Panama Canal by way of Hawaii is a stretch of 6,700 miles which must be held in order to guarantee the integrity of our very continental territory against attack from across the Pacific. This means that Hawaii must be made secure at any cost; and this view has been held by our military men and statesmen from the time when first these islands came to their attention. In 1873 Hamilton Fish as Secretary of State declared that, "Their transfer to a maritime power would threaten a military surveillance in the Pacific." In 1895, before they had come under our flag, General Schofield said:

The Hawaiian Islands constitute the only natural outpost to the defense of the Pacific Coast. In possession of a hostile power in time of war, as a depot from which to fit out a hostile expedition against this coast and our commerce on the Pacific Ocean they would afford the means of incalculable damage to the United States.

Admiral Mahan urged us strongly, if we could honorably do so, to secure possession of these islands, saying:

It is rarely that so important a factor in the attack or defense of a coast line—of a sea frontier—is concentrated in a single position, and the circumstance renders it doubly imperative upon us to secure it if we can.

IMPORTANCE OF HAWAII

Admiral McKean recently stated that these islands were "The focus and controlling point of the eastern Pacific." Major General John L. Hines, Chief of Staff of the United States Army, speaking of maneuvers held re-

cently in Hawaiian waters, declared that, "The possession of Oahu . . . removes our western frontier a full 2,000 miles to the westward, and until that line has been forced our whole coast is safe." There is not and there never has been any question but that the security of the Hawaiian Islands is necessary to the defense of our coast. Capt. Dudley Knox, U. S. N., retired, informed the naval committee of Congress that, "The Oahu position is vital for both offensive and defensive operations."

Here a digression is necessary in order to clear up a confusion which commonly exists regarding the term "offensive operations" and without a clear understanding of which the statement of Captain Knox loses more than half its force. "War is political action," says Mahan, "its purpose is to compass political results where peaceful methods have failed." An offensive war in a political sense, a war of aggression, is one thing; but in a purely military sense, once statesmen have started a war, "the best way to defend is to attack," and an offensive policy is to be commended because it alone can bring about decisive results and hasten the end of the war. "When war has been accepted as necessary," says Admiral Mahan, "success means nothing short of victory; and victory must be sought by offensive measures, and by them alone can be insured." A strict defensive is justified only as a temporary measure necessary to lay the foundations and to store up the necessary strength for the offensive which is the decisive effort. From any other point of view it is not only unsound in a military sense, but even wrong in a moral sense, because it prolongs unnecessarily the destructive and costly war. It is also a dangerous policy because the defender must guard everywhere, once the enemy is given the initiative; and to guard everywhere is to be weak everywhere. The offensive, on the other hand, enables the attacker to concentrate his forces at the decisive point; and success at the decisive point is success everywhere. As Mahan ably expresses it, "The offensive element in warfare is . . . the end and aim for which the defensive exists." Over 2,000 years ago Xenophon clearly expressed this idea when he said that those were not our best friends who stood beside us to defend us; but they were our best friends who go against the enemy to keep him away from us.

THE COST OF ADEQUATE BASES

And so if Hawaii were to fall, our friend which keeps the enemy away from us will be unable to do so; while its conquerors would be in a position to conduct offensive operations against us, with all of the advantages which the offensive gives. Now we may see why Captain Knox stressed the value of these islands as a base from which we may be able to conduct offensive operations, and why, if they were to fall, we would be forced at any cost to recapture them. And the cost would be appalling. Nevertheless, not only would national pride demand that we pay that cost, but national security would insist upon it. Our whole history is the story of our attempts to force powerful nations out of commanding positions from which our security might be threatened. Even while we were yet colonies we engaged in two wars against the French outposts on this continent; and by purchase in 1808 we completed their expulsion. When the Emperor Maxi-

milian came to Mexico our veteran armies of the Civil War gave weight to our protests. In 1812 it was "On to Canada." The expulsion of Spain was gradually accomplished until in 1898 she was driven from her Caribbean strongholds. By purchase, at a price fabulous in those days, we got Russia out of the supposedly worthless Alaska. This instinct is too strong in us ever to permit a great naval power to hold the Hawaiian Islands. If we had to maintain permanently there a full army corps and to spend annually $100,000,000 to fortify it, the cost would be well worth it, because it would be a mere tithe of the awful cost of its recapture, to say nothing of the cost in lives. But today we could make these islands reasonably secure for a mere $40,000,000!

At present, as naval maneuvers have shown, the situation is unsatisfactory. "Unless fortifications and man power are provided to defend advanced bases," Commander Stanworth, U. S. N., retired, told the naval committee of Congress, "they become a source of supply to the enemy." We have already seen how this would work out in the Philippines and at Guam. There we are helpless to remedy the results of our indifference. But we can and should prevent our country from making the same stupid blunder in the vital Hawaiian Islands. Our present situation represents a vicious circle: a fleet cannot operate overseas without adequate and secure bases; and these bases cannot be long defended unless the fleet is able to operate from them. But once we have the strong and fully equipped bases the vicious circle is broken. We have a naval base at Pearl Harbor near Honolulu; here is how the distinguished British naval authority, Hector C. Bywater, speaks of it:

It is, of course, well known that as a naval port Pearl Harbor is still in a backward state of development. Its present facilities are wholly inadequate for the requirements of a big fleet mobilized for war.

THE BASE IN HAWAII

And that is not the half of it. Our battle fleet cannot go into Pearl Harbor for shelter even in time of peace; during the maneuvers of 1925 the battleships and even the cruisers had to anchor in the open roadstead off Honolulu and Waikiki where one battleship rolled so heavily in the swell that she dipped her upper ports under and shipped a great volume of water—and that was in calm weather! Even in time of peace and under favorable conditions a naval officer will take a battleship through the channel into Pearl Harbor only if a strict necessity exists. But in time of war the situation would be absurd if it were not so tragic.

There is a very fine modern drydock in Pearl Harbor, large enough to care for the biggest dreadnought. It was, in fact, built for use in time of war, because our battleships are seldom there in time of peace. But in time of war, when it will be most needed, our battleships may not be able to reach it! Now, presumably, the time when battleships need a drydock most urgently is is time of war when they have been injured in action. But almost any injury serious enough to cause these ships to go into drydock will be precisely those which will increase their draft; and any increase in draft means that they cannot reach the dock! The narrow, tortuous channel into the harbor was dug 15 years ago when the average draft of a battleship was about 28 feet; now they draw about 35 feet. The channel must be deeper than that by at least a foot in order for the ships

to navigate. Moreover there is a tidal variation of about 18 inches; again, near the entrance the swell from the Pacific Ocean creates another variation of from three to six feet; so that from six to nine feet of depth of water must be added to the draft of the ships to enable them to enter even under normal conditions.

According to Commander C. N. Robinson, R.N. in Brassey's *Naval Annual*, a modern battleship when damaged may draw as much as 45 feet, which would seem to call for a depth of channel of over 50 feet. However, it is believed in our naval service that ordinarily a depth of 45 feet at the bar and 40 feet in the rest of the channel is a reasonable allowance under ordinary circumstances; if a ship drew more than that some ingenious engineering device would probably be resorted to in order temporarily to decrease the draft of the injured ship until it could be docked. Our Congress, made aware of this preposterous situation at Pearl Harbor, authorized $5,900,000 to correct it; but the money has not yet been appropriated.

EXPERT OPINIONS ON THE SITUATION

We may sum up the situation in the Pacific in the words of Mr. Bywater: "The strongest fleet working from Hawaii could not possibly under present conditions, represent a danger to Japan." The British *Naval and Military Record* for December 3, 1924, said: "Unless and until the Singapore scheme materializes no power but herself (Japan) will have a first-class battleship base in the Pacific."

Commander Stanworth, U. S. N., says: "If through neglect or by provisions of treaty, fortified naval bases are not established in distant possessions, the preparations for an overseas expedition are more complex, the number and character of the fleet train augmented and modified, *and no base in home waters can remedy the omission.*"

"No base in home waters can remedy the omission"; but what, then would be the situation if we had no base in home waters? And that is precisely the situation we are in! We have, it is true, certain naval facilities of a poor sort on the Pacific Coast, and later we shall see what they are and what they can do, but let us first consider the situation with which they would have to cope in the event of a war in the Pacific.

Suppose a war occurs. A month elapses before the reserve ships are repaired, manned and put in commission; five more months crawl by before the auxiliary ships for the train are converted for naval uses, armed, supplied, manned and made ready. Our naval forces afloat would expand to about 900 ships, including small craft; the tonnage would increase from about 641,000 to 5,000,000; and some 210,000 men would be required to man this war fleet. Even in the more numerous and highly developed eastern ports the experience of the World War proved that we could not rely upon commercial facilities. But a war in the Pacific would be infinitely more complicated. We must not forget that every additional mile that a fleet has to go demands more tonnage, and that distances in the Pacific are roughly double those in the Atlantic. Admiral McKean has testified that, "It is nothing unfair in making it an 8 to 1 proposition," not only in view of the greater distances, but also considering the

smaller number of ports on the Pacific Coast and their undeveloped state.

OUR RESOURCES

What resources have we for meeting this problem? We have, as Admiral Eberle graphically expressed it, between Panama and Puget Sound, a distance of 4,100 miles, but one drydock, and that privately owned! That is the Hunter's Point drydock in San Francisco Bay. We have a naval drydock at the Bremerton Navy Yard in Puget Sount, one at the Panama Canal, and the useless one at Pearl Harbor. That is all. The closest together are those at Bremerton and San Francisco, 800 miles apart; the others are from 2,000 to 4,000 miles apart. In time of peace, with only a part of our peace-time Navy in the Pacific our difficulties are serious. Steel ships rapidly deteriorate and lose speed unless docked, preferably twice a year. With 12 battleships in the Pacific each can go to the Bremerton drydock only once a year for a maximum period of one month. Of this time often one half is required to make the preliminary surveys, the preparation of estimates, the drawing up of blue-prints and the disassembling of the machinery, leaving an insufficient time for even the essential repairs; so that the ship often goes back to sea patched up until the next year comes around. Mare Island, in San Francisco Bay, can take care of minor repairs for the larger ships and can accommodate smaller craft in all respects; but even in time of peace the force is often required to work day and night. Contrast the situation that would arise in time of war with the situation in Japan as described by Admiral Bubnov:

After battle eight Japanese battleships (three-fourths of the present day Japanese battle fleet) could be put into drydock *simultaneously*, and repairs could be started simultaneously at four different points.

In its home waters the British Royal Navy (which is about equal to the U. S. Navy in the number of ships) has eight naval drydocks and 14 privately owned, or a total of 22. Throughout the world it can rely on 33 in all, five of which are in the Pacific. On the Atlantic Coast, which is now of secondary naval interest, we have seven drydocks. We have two available for practical use in a trans-Pacific war.

SAN FRANCISCO BAY

We have not a single fleet base in the Pacific. San Francisco Bay is a perfect location for one, having in a high degree every important requirement, and being able to accommodate at the fleet anchorage our entire war fleet. But at that anchorage there is not a single naval dock or barge or landing float; there are no storage facilities nearer than Mare Island over 30 miles away. When the fleet visited San Francisco on its way to Hawaii it could be accommodated even for a few days only because the patriotic shipping companies were willing at a great sacrifice to surrender their private facilities to the Navy. The City of Alameda, by express permission of the California legislature and by a popular referendum, offered free to the Navy a few years ago a magnificent site for a naval base eight miles long opposite the fleet anchorage. The offer was renewed, and the last option expired unaccepted by Congress, on January 1, 1925.

During the World War we spent $250,000,000 merely to supplement al-

ready existing naval base facilities on the Atlantic Coast. Even more would have to be spent in an emergency on the Pacific Coast. But for two-fifths that sum today we could complete a fully equipped string of naval bases, at the Canal Zone, Pearl Harbor and San Francisco; for three-fifths that sum we could complete our entire naval base program; for the full amount we could in addition build the United States Fleet up to the full 5-5-3 ratio and man it. Such a program would go far toward discouraging Japan from resorting to force in disputing the Open Door and immigration policies of the United States. If we succeeded thereby in maintaining peace, as many thoughtful people believe that we would, it would be a small price to pay to insure us against an infinitely costly war with its far-reaching losses and distresses. But even if it did not prevent a war, it would be an economy not only because it would spare us the reckless expenditures which have always accompanied our eleventh-hour efforts to prepare for war, but it would save us even more by shortening the war. Even one week's time cut off from the length of the war would amply repay us for adequate preparation.

WEAKNESS INVITES AGGRESSION

Deplorable as it may seem, nations are encouraged to recklessness by the weakness of their adversaries, and deterred from making war by an opponent's strength. It is to be noted that even pacifists when they come into positions of responsibility are ultimately forced by experience to rely upon this as the most practical method of keeping the peace. And we ourselves see this every day. We see Greece fawned upon by the Powers and favored by them until her armies are destroyed by Turkey; whereupon it is suddenly discovered again that the Turk is a gentleman and we find the exhausted Powers only too ready to grant his demands rather than quarrel with his victorious armies. And Turkey, in turn, is made reasonable in the hour of victory by the firm stand of General Harington and the powerful British naval force at the Bosphorus. It may be worth while to ponder over this amazing statement of Captain Mironori, I. J. N., retired, showing the point of view of a Japanese naval officer whose views are too liberal to suit his fellow-countrymen:

> While many Japanese thoughtlessly and irresponsibly talk of war with America, there is hardly any person with any knowledge of the conditions in Japan and America who seriously entertains the idea of hostilities between the two nations. *War should be started, if at all, only when there is a firm belief in victory.*

That the United States has no intention and no desire to start a war, we all know; and the best insurance against one being started by any nation is to give it no reasonable hopes of victory.

Why Leavenworth?

By *Major* H. H. Pfeil, *A. G. D.*

THERE may be other educational institutions as thoroughly misunderstood and as roundly cursed out as the Command and General Staff School at Fort Leavenworth, but if there are such I have not encountered them. Certainly there is none other in the army. No one enters upon the course there without trepidation, and no one graduates without a feeling of relief. But no officer can honestly say that he has passed over the course without having derived from it a vast benefit, provided he has put into it the conscientious effort which its successful pursuance entails.

Like others, I was a severe critic of the school while a student there, and like many others I have lived to become a booster. As in every human agency, there is room for improvement. If this were not so, Leavenworth's usefulness to the country and the Army would have reached its end. Like every vital agency, change is constantly taking place. Last year the course was much better than that of the previous year. This present year, 1926-7, I daresay it will be better than it was in 1925-6. During this present year students will undoubtedly feel that they are working harder than we did last year. Our class thought that we worked harder and got more "raw deals" than the class that preceded us. When the smoke clears away the average will be found to be about the same. There is very little variation from one year to another.

Why Leavenworth? Why are officers sent there and worked almost to the limit, and mentally harassed and seemingly confused, why are they subjected to the strain which undoubtedly grips them, and in a few instances destroys them?

There is a reason. Leavenworth is a school of war. The course of instruction there, designed as a test of the physical, mental and moral fiber of the students, seeks to discover those competent to lead and direct our armies when next the trumpet of the war-god blows and men rush to arms. In no other country in the world does so heavy a responsibility rest upon the shoulders of its military men as that which the officers of the United States Army are now carrying. No nation the world has ever known has had thrust upon it by destiny the power and the influence for good and evil which this nation holds. When that prestige is challenged its endurance will depend, in a large measure, upon the efficiency of our military leadership.

> When America's prestige is challenged, the endurance of the nation will depend, in a large measure, upon the efficiency of our military leadership

War, at best, is neither a delightful prospect nor a pleasant occupation. To engage upon warfare without due preparation is a form of insanity; to send men to war lacking intelligent leadership is criminal. That has been said many times, but will bear repeat-

ing. In peace time it is impossible to test officers under the actualities of war. War cannot be successfully simulated. The nearest we can approach to it is at maneuvers and on paper. Our military appropriations will not adequately meet the former; the latter is relatively inexpensive, and while lacking in some respects the value of the former, permits a free play of the imagination without the concomitant necessity of paying too heavily for the errors and mistakes that are ever ready to creep in and destroy the best laid plans.

The mission of Leavenworth, as I see it, is to discount failure in war by placing a mental hazard in front of every problem it presents for solution. Take away the hazard and the problems are not worth a "hoot." Throw out the problems and the course degenerates into a series of lectures, lifeless, academic and ineffectual. Some of the problems turned out are fantastical. So are many situations in every phase of actual existence, including war. When a fancy one is handed out the students howl. The greatest surprise a student gets is when, after having put his deepest thought on the solution of a problem, he discovers that he has gone east when the school has gone west. He also gets an "unsatisfactory." But one should not lose heart over such an experience. Few escape it, and those who do, miss something in the course that is invaluable. The fellow who goes wrong now and then is at least thinking independently and not just following. But the fellow who does it too often lacks judgment!

In its problems the school sticks close to principles with just enough method, or technique, to insure an orderly development of the solution. One can pass the course satisfactorily with poor technique, and no great harm done, but if one fails to apply, or misapplies, a principle, he is ruined.

The school attempts, and successfully, to differentiate between principles and rules. War is an art, and not susceptible of reduction to hard and fast rules. Everything else remaining unchanged, a cloudy day can alter the application of the principles of war. Given exactly the same set of conditions, it is doubtful if any two military leaders would apply the principles of war in exactly the same manner. That in itself elevates war above and beyond the mechanistic. Leavenworth is not a school that teaches mechanics. The technical and special service schools exist for that purpose. Where they stop, Leavenworth begins.

An officer going to Leavenworth should go prepared for a year of constant, continuous, unremitting and exhausting labor, under physical surroundings as well regulated as it is possible to regulate them, but in a mental atmosphere that will test him as he has never been tested before. There is nothing inspiring in paper warfare, there are no plaudits and no medals to be won; but there is a world of experience to be gained. Every man is on his own, to make or break according to his own ability. It is a place for men of character, not one where character is made. Any officer possessing character and grit will get through comfortably. If he does not possess these two assets, he had better remain away.

Conference Versus Correspondence Methods

By *Major* H. A. Finch, *Corps of Engineers*

THE one and only Will Rogers says that whenever he finds himself facing the horns of a dilemma he wades right in, grabs a horn in each hand and throws the bull a mile! This sort of thing makes money for a professional humorist but throwing the bull gets nowhere in the serious business of training men for military duty. Yet isn't it true that for eight years we have been doing just that concerning Reserve Corps instruction? The figures prove it. We count our 100,000 Reserve officers as a military asset, we talk of the training being given them by the 640 officers detailed solely on that duty under the War Department, —but the cold figures show that, for the year 1925-26, only one Reserve officer out of every six enrolled for instruction by correspondence courses or otherwise. The "or otherwise" is of no consequence for, as will appear later, correspondence courses constitute almost the only form of training provided between encampments. One out of six! And, worse yet, the percentage of men completing the correspondence courses is an even more minute fraction.

> A series of conference courses for Reserve officers has proved in the case cited of more value than correspondence methods

The reasons for this poor showing are not far to seek. There are three standard methods of imparting instruction: first, by tutor for each individual, the best by far but impracticable except for rich men's sons; second, by conference or group contact and, third, by correspondence. Now it is a fact, and the enrollment of Reservists for our correspondence courses proves it, that the average man of intelligence will not attempt to obtain instruction via the correspondence method if either of the other two methods are open to him, and he will not seek it even then unless the instructor knows enough to put out his "stuff" in satisfactory form. This fundamental fact bears repetition: the average Reserve officer, being a man of intelligence, will not enroll for a correspondence course if he can secure the training through an acceptably conducted conference course.

For the purpose of making a start on Reserve instruction immediately after the war the correspondence method had some merit; it sufficed to fill a gap until conference courses could be organized, but the experience of the past eight years has proven that the correspondence method cannot be relied upon to produce results of real benefit to the military establishment. Entirely too few students participate to make the system worth the effort expended upon it. Such courses suffer from the inescapable handicap of not providing the student with any per-

sonal contact whatever, either with his instructor or with others wrestling with the problems that pester him. Furthermore, our army correspondence courses are not prepared in such a way that the instruction given leads logically up to the student's active encampment training. Such coordination between inactive or "garrison" training and the active or encampment training is highly desirable. A well prepared conference course is always laid out with this in view, and in addition it has the tremendous advantage of providing personal contact between teacher and taught, particularly during that period when the young Reserve officer is obtaining his basic military education. If practical and active training follows well conducted theoretical instruction the maximum benefit for the student is secured. It is a maxim as old as Socrates that practice and theory should go hand in hand.

There is no proof of the pudding like the eating of it. Let us look at a comparison of the correspondence and conference methods in the 9th Corps Area as disclosed by the following tabulation. The Reserve officers listed were drawn from the Engineer branch—and it should be remembered that the instructors in charge of the conference courses did no soliciting whatever nor did they stress the advantages of the conference course to the detriment of the correspondence method. The figures quoted apply to March 31 of each year except 1926-27.

Now these figures beat "throwing the bull." They show that, beginning in 1924-25, the conference course (operating through classes conducted in Los Angeles, San Francisco, Portland and Seattle) enrolled more students than the correspondence courses; they also show that the former have gained steadily in enrollment, while the latter have continued to attract about the same percentage of the total and a very low percentage at that. It should be noted also that fully 75 per cent of the 996 Engineer Reserve officers tabulated above reside within commuting distance of the four large cities mentioned; in other words they were within reach of the instructors for personal contact. Doubtless the percentage of city-dwellers among Reservists of other branches will be somewhat lower, but the point is that there will always be, in every large city, a numerous group of Infantry, Cavalry and Artillery Reservists.

To take a concrete case of a single class: Fifty-three per cent of the 282 Engineer Reservists residing within commuting distance of Los Angeles enrolled for the 1926-27 course. Applied to the 349 Reservists living in all of Southern California the percentage of enrollment was 50. Of course there are a few, perhaps 10 per cent, who produce nothing after enrolling; they are simply "jiners" or are led by curiosity to investigate what it is that their associates are so enthusiastic about. Such a fringe of non-producers is to be

Year	*Total Reservists*	*Enrolled for Corres. Courses*	*Per Cent*	*Enrolled for Confer. Course*	*Per Cent*
1923-24	800 [1]	100 [2]	12½	0	0
1924-25	876	112	13	137	15½
1925-26	992	124	12½	291	30
1926-27	996	190	19	400	40

[1] Estimated.
[2] Estimated; total on Dec. 31, 1923, was 91.

found around every Reserve group or any other group for that matter, Reservists being exceedingly fair samples of human nature. But the point is that the remaining 40-odd per cent of a large total of officers are obtaining military training that they have heretofore not secured.

Now it means work to conduct a worth-while conference course. Giving lectures will not suffice; there must be the three factors discussed in previous articles on this subject, i. e., individual work, individual criticism, and individual credit, plus personal attendance where practicable. There must be a well prepared instructor and he must be backed up by a superior at corps area headquarters competent and willing to provide the texts and problems needed. The former may simply be compilations from existing training regulations, but they should be put out in handy form and be relieved of all unessential details. The instructor and his backers should have the gift of being able to single out the bare principles on which their problems are based.

Given these advantages, the conference course so conducted will be within the physical ability and mental capacity of any conscientious Army officer. The Engineer conference classes in the 9th Corps Area are presided over by seven Regular officers supported by the corps engineer whose force consists of two enlisted men plus a draftsman and a clerk. This force gets out the problems and texts for the seven monthly classes held each year. Of the seven instructors, five perform this military work in addition to their regular duties as district engineers in charge of river and harbor improvement.

Of course where a Reservist is so situated that he cannot attend class assemblies the conference course becomes a correspondence course, But with this difference: the work is laid out in coordination with the practical training planned by the corps staff officer for the following summer encampment, then again the instructor is in a position to furnish each absentee from the class with a transcript of the discussion of each problem that took place at the class assembly. This sort of service has been installed for the Los Angeles class and it has made a hit; 50 per cent of the isolated officers have enrolled for the 1926-27 course.

One writes diffidently of his own work; it sounds suspiciously like blowing one's own horn. However, this subject is important enough to justify throwing modesty out of court, if necessary, but there is no boasting here for any other branch can make a like showing if the officers are willing to make the effort. But it means *labor* to conduct the classes and to give each student the individual attention and diagnosis his case deserves. However, hadn't we better be about something of the sort? Otherwise, to quote Will Rogers again, we are sure to be caught out in the next war armed only with a putter and a mashie!

The Infantry

By *Major General* William N. Haskell, *N. Y. N. G.*

IT IS an old and true statement that Infantry is the backbone of the Army.

No battle on land can be won without it, for Infantry is the arm that actually delivers the assault against the shaken enemy and either drives them out of their position or destroys them. All other arms cooperate and do their share according to their particular functions to make the final assault of the Infantry successful.

Where an enemy retires before the assault, it is the threat of the impending Infantry that causes it—but it always is the oncoming mass of foot troops, ready for personal combat, that makes up the enemy's mind.

Necessary as artillery is for making the assault possible, for helping advance the Infantry, for breaking the morale of the enemy and reducing Infantry losses from enemy artillery and Infantry fire—artillery alone could never win a battle or shoot the enemy out of a prepared position. And so it is with the other troops of the line—the special troops and the work of the staff.

All help to make up the fighting machine, but all are working for the success of the final Infantry punch.

Since the Great War the rôle of Infantry has been greatly broadened.

To be good Infantry today requires more training and more kinds of training than in the old days of the rifle and bayonet only.

Those weapons are still most important, but now a knowledge of others is required.

A regiment now has three machine gun companies, one for each battalion, and much instruction in the technical and tactical uses of this valuable weapon is necessary. The same applies to the howitzers and trench mortars, a platoon of which is usually attached to each Infantry battalion in battle.

Then consider the training in grenades (hand and rifle), the use of smoke, gas, etc., and the greatly increased number of men armed with the pistol.

An Infantry battalion nowadays is a miniature division, with all of its varied activities.

Add to all the above the ability to march and carry heavy packs, construct trenches and master the Infantry approach and assault formations, and we see what a task is now set for the Infantryman.

We have not mentioned the training of specialists such as medical detachments, signallers, runners, orderlies, message center personnel nor the many duties connected with the health, feeding, clothing, equipping and administrating of the Infantryman.

Can the National Guard produce good Infantry within the time available for training? My answer is "Yes," and the records of the New York State's ten Infantry regiments proved it at Camp Smith this year. Perfection was not attained and probably never will be, but by hard work and intelligent leadership progress was made, a fine record established and the ground work on which to build as good Infantry as exists in America today.—*New York National Guardsman.*

Health and the Office Worker

By *Major* A. P. Clark, *G. S.* (*Medical Corps*)

BETWEEN the Civil War period and the 90's America became a great industrial nation with a population that was doubling every 20 or 30 years. Big cities became the rule and ever increasing numbers of our people deserted the rural districts for urban life. The native born was a product of pioneer life as it had developed in the open during Colonial days. This class had been reared under these circumstances for generations with the survival of the fittest process constantly eliminating the less strong. However ably equipped, these newcomers to the offices and factories entered an environment where the odds were against them and where the remarkable flexibility in man's make-up alone permitted them to carry on.

> An article written especially to the healthy, hardy, heavy fellow, who abuses his body day and night and realizes it only after the damage is done

The early part of this period was not remarkable for progress in preventive medicine. Our losses were great, but the influx from Europe and our natural increases obscured the depletion. When the light dawned toward the close of the past century and we acquired an insight to the causes of so many diseases, the knowledge led to conservation in the early age group. There followed rapidly a great reduction in the death rate of infants and young children. It has been only in the past 15 or 20 years that the other and equally serious problem, the high death-rate in the middle age group, has come under really scientific investigation. We may now in all fairness say that once we are admitted to this world we have a really splendid chance of enduring even to a ripe old age and this in spite of hazards to life and limb that pursue us in most of the hours that make up our day.

This improvement has come through the wondrous discoveries of our modern age it is true; but it has been made broader in its application by a common sense study of the human being as an animal in a more or less artificial environment, an environment to which he has been forced swiftly to accommodate himself if he is to survive. Where the conditions have worked naturally to his undoing they are gradually being turned to his advantage. A high standard of living can make or break man, depending upon how he uses it. Today he can, with equal ease, eat, drink and do those things that are best for him or worst for him, and he himself decides. He can no longer plead ignorance, for education of the best sort is now his without asking—information is poured out to him until he must be deaf, dumb and blind to escape it. But man is, above all things, a creature of habit, and habit seems sometimes stronger than the very love of life itself.

In no phase of adult life is habit stronger than in the matter of diet.

Barring the element of heredity, which after all is not ours to change, there is probably no other single factor having greater influence upon our health than the food we eat, unless it is the exercise we take. Practically speaking, we are what our foods and labors make us. Even lack of exercise can be partially compensated by reducing our food. But for constantly eating too much food or the wrong food we must always pay the price; while starvation is swifter as a cause of death it is little less sure. Our eating habits are formed early and right or wrong they are inclined to stay. A physician is faced daily with the problem of changing these where wrongly formed and it is a problem of no mean proportions; friend man hates to abandon the food he loves—he frequently abandons the physician instead.

FOOD REQUIREMENTS

There is an interesting analogy when investigating questions of diet. It is between the child's body and a new building in the process of construction or the office worker's body and the building after completion. The young body needs ever increasing amounts of heavy, permanent building material, just as any other building under construction; the office worker represents a finished structure demanding, for the most part, fuel to keep it warm, requiring bricks and mortar only for maintenance and these in relatively smaller amounts than in the case of the child. This is where most of us go wrong. Not only is the child a very active little animal, consequently a rapid burner of fuel, but he must constantly store away more and more of what he absorbs. His almost voracious appetite makes it possible for him to meet the demands of a growing body and at the same time permits his ceaseless activity. The appetite becomes a habit that is passed along to his adult life when the muscular activity is hardly even a memory. The adult discriminates little between ordinary fuel foods and the heavy building material that he neither needs nor can burn up in his daily life.

Through force of habit then our full-bodied business man not only eats more than he needs but eats too much of some things and sometimes too little of others. His diet is overabundant and usually seriously out of balance. Periodically he attempts to mend his ways but as is so often the case he is confronted with a complicated picture of calories, proteins, fats, etc., that mean little to a busy man—the solution is too difficult and time after time he gives it up. If this problem can be really simplified something has been accomplished for a group sadly in need of help.

CLASSES OF FOOD

We eat to maintain the proper temperature of the body and to replace the wastage that occurs in our tissues due to wear and tear. We drink water to dissolve this food and to assist in its distribution and elimination and of course to control our temperatures. We breathe to supply the oxygen that is needed in the process of converting the food into heat energy and other forms required by the body. The fluids drunk and the air breathed are therefore essential parts of our food supply. These foods reduced to their simplest elements include the building and repair group such as meat, fish, milk and eggs and the fuel or simple energy producing group which includes, for example, butter, sugar, bread and potatoes.

These items in the two groups have been mentioned merely as fair representatives of their group. But we must consume other things besides repair and fuel foods. We must have minerals, roughage and those illusive but precious vitamins. Happily, these last three are most frequently found together; when we find our roughage we get our minerals and a fair share of vitamins at the same time.

Minerals in proper balance and liberal quantities are one of the first requisites to health throughout our life span. Our blood stream, bones and teeth are examples of the tissues which would cease to function without minerals. A widely varied list of fruits and vegetables, particularly the leafy vegetables, will supply us with minerals in proper balance and quantities in a desirable excess. These foods are grown in the soil and they have the selective power to extract these minerals for us. No one item contains either enough of all or all in proper balance—this is the reason for a wide variety. The fruits, particularly the citrus fruits such as lemons, oranges and limes, supply in addition to minerals a liberal quantity of fruit acids which have the peculiar characteristic of being converted into very desirable alkaline substances as they pass through the system in contact with these minerals. Most foods that are high in minerals or vegetable or fruit acids are also high in vitamin content. Fortunately also, these same foods supply us with liberal quantities of bulk or roughage. The normal adult diet must contain bulk. The bulk supplied by the vegetables such as spinach, celery or raw cabbage does not ferment or putrify in the intestinal tract but in passing through gives the bowel something upon which to contract; it exercises and stimulates the bowel muscles. Roughage also dilutes an over concentrated diet. Vitamins, as everyone now knows, protect us against certain diseases and stimulate our vital functions; we cannot long carry on without vitamins. But as in the case of minerals (except table salt), roughage and fruit acids, we need have no fear of an excess of vitamins.

THE BALANCE IN OUR SYSTEMS

It is the excess of the fuel and building foods that upset the balance of our systems. These foods are largely acid forming, tending always to a lowering of our alkaline balance when taken in quantities greater than our need. This excess will either build up fat on our bodies or require elimination; in either case it throws a load on the heart and intestinal tract that sooner or later leads to trouble. The only simple guide to how much of these foods one should eat is how we feel, how we look and how much we weigh. Age, height and type are determining factors in weight but there is nothing difficult about determining the answer to this question. Having determined it, however, and being reasonably assured of its correctness, a small platform scale becomes a most important piece of equipment in the home if we are to check our results in this matter of diet.

Our diet must be built up from its fruit and vegetable basis. These we must have. To this base we add breads, other cereals, sugars, and heavy vegetables in such quantities as we can handle and our appetites crave, always leaving a little space in our diet for the foods of repair—milk, eggs, fish or meat. As the scale tells us to ease off

we do it first in the repair group and next in the fuel group, but never for long. Any real loss of weight should be spread over a considerable period of time—from one to two pounds loss per week is a safe rule for any but extreme cases. It is obvious that we have so far considered this subject only from the viewpoint of one who is overweight and the correction of this defect by diet alone. It is a simple fact, of course, that reduction in food intake will lower the body weight, but this is too often the only means employed.

MUSCULAR ACTIVITY

Much better results will always be obtained if we first balance our diet as to its components and then balance our exercise against the food taken and the amount of weight lost. As everyone knows, exercise is as essential to the human being as to the lower animals. It is very largely through exercise that we convert our food into reserve energy. Muscular activity stimulates the normal functioning of the body. It increases both appetite and elimination. As is perfectly apparent, without reducing our diet in its actual food value when once it is balanced as to its components, we may lose our two pounds a week by merely adding a few miles of walking to our daily exercise. As this exercise is increased we will eventually have to add to the food value of our diet to avoid excessive loss of weight, and generally speaking this larger turnover is desirable since it permits the intake of those valuable excesses of fruit and vegetable acids, vitamins and minerals. It is of primary importance to recognize the value of a balanced diet but even diet cannot be ranked ahead of exercise in the daily regimen of our office worker. In many ways an abundance of exercise permits us to get more out of life. If we are fond of eating as really a normal person should be, we can eat more of the things we prefer. It is most fortunate that there is no one perfect food for the adult, for we would soon have this phase of our existence reduced to mechanics and a simple formula. Fresh whole milk comes the closest to being a perfect food for man at any age. We may consider ourselves fortunate when day after day milk is looked forward to as an essential part of our meal. While milk is, in a way, a concentrated food, it contains a majority of the things we seek and contains them in a most acceptable condition.

OVER AND UNDER-WEIGHTS

The hygiene of diet is of interest more to those underweight than to the over-heavy person. The busy man is inclined to remove the ceremony from his meal, making of it a hurried affair to be gotten behind him. There is no greater mistake. We can no more digest food when we are tired than we can when we are sick with a fever. The slender individual will notice immediate gain under rest before meals. This is particularly applicable to the evening meal. Furthermore, these people are in urgent need, as a rule, of more pleasant diversion in the open air and sunlight—but their exercise should stop short of fatigue. The man who is naturally slender has usually a shorter intestinal tract and therefore from 20 to 40 per cent less capacity for assimilation. This is a very important thing to remember. One is reminded that if we fattened a race horse he would no longer be a race horse. Type means much in our study of the ways to

health. We have also learned these last few years that it is well enough to be a bit overweight while under thirty, but from then on our chances of living are increased by being just a little under what might be called normal weight; age, height and type considered.

Because of the anatomical variation in the digestive systems of the slender type they do well on easily digested food, still carefully selected in the matter of balance. Their diet, if anything, can be somewhat more concentrated but great care should be exercised to avoid constipation, to which they are usually subject. An abundance of fresh fruits and vegetables will usually preclude this. They should particularly avoid three things after a meal: bed, bath and fatigue. Furthermore, these people should learn how to breathe and use the diaphragm—deep breathing will stimulate digestion and the circulation and better assimilation will result. This is assisted if they will remember to sit, stand and walk tall with the chest high and the abdomen in and the buttocks flat. Good posture alone is one of the most useful forms of light exercise.

CONDITION OF THE TEETH

The condition of our teeth and the way we use them are matters having a very direct bearing upon our health. The seriousness of their loss or damage is too little appreciated. We have recently been coming to understand that it is easier to prevent tooth decay than it is to repair it after it occurs. For years we have looked upon damaged teeth as nothing unusual and we have assumed that pyorrhea was inevitable after forty. Nothing could be more unsound. We are not yet certain as to the exact cause of either of these conditions. But we notice that primitive peoples who live in the open and eat coarse foods rich in minerals usually retain their teeth. The teeth and gums are built to stand hard use. They improve under use. Foods that have to be chewed are good for the teeth. These foods are usually rich in minerals, particularly lime. Foods that are lacking in those essentials merely crowd out of our diet the necessary lime. The blood streams must have this lime and it is quite possible that if the diet does not furnish it the teeth and bones will. At any rate, a lime rich diet keeps our mouths alkaline and well used teeth are usually clean and healthy teeth.

NEED OF REST

While decayed teeth are too prevalent, pyorrhea is probably not nearly as prevalent as it is generally believed to be. Certainly less than 10 per cent of our population past the age of even 60 years suffer from this condition. But the real question is why do these 10 per cent or less have this disabling condition? We may not yet be sure but we strongly suspect it is due to just poor diet and mouth hygiene. We are sure enough to suggest that these are well worth correcting. Pyorrhea and dental caries lead to no end of complications and eventually to the loss of the teeth. We owe our good teeth to our ancestors' mode of living. If our present day civilization is ruining our teeth it is high time we realized it. An office worker may not need his teeth in his daily work, but he needs his health, and when his teeth go his health goes with it and usually his job. When a soldier loses his teeth he usually loses one of his greatest rights, the right to fight for his country.

To the office worker rest is no less important than is exercise. All rest need not be in sleep and all sleep is not necessarily rest. The expenditures of the day must be made up at night. Sleep once lost can never be regained and we can do better without food than we can without sleep. Just as the best hours of the day are those immediately after sunrise, so are the best hours of sleep those before midnight. Office workers need plenty of sleep. This is the only real opportunity their mental batteries have to recharge. Man needs a solid, flat, comfortable bed in which he can lie tall just as he stands tall when walking. He needs fresh air without draft and he needs to sleep warm—cold air in a bedroom is fine, but it need not be so cold that the sleeper is never really asleep. Remember the military lesson that the cold comes up from below, through the mattress. We should have more under us than over us and as a result we will be more rested in the morning; the burden of heavy covers for the one-third of our life spent in bed is no inconsiderable one. Coffee greatly interferes with sleep as does heavy eating and smoking before bed time. They all raise blood pressure and make us more alert and wakeful. Before leaving the subject of sleep and rest be reminded that the products of combustion in the nervous system are eliminated to the blood stream more slowly than from any other part of the body. This explains why recuperation from mental work and strain is slower than in the case of ordinary muscular activity.

THE EYES

Modern life throws a very heavy strain on the eyes. In days of old books were scarce and of small value to the masses. Their eyes did little near work and stood up accordingly. Today, our eyes are in more or less constant use for close-up work. This is a strain on even perfect eyes, while it is a trying load to carry for those with visual defects, even when well corrected with properly fitting glasses. If uncorrected, it is a frequent cause of serious symptoms with the concomitant loss in efficiency. Flexibility in accommodation is gradually lost with advancing years and must be compensated by reading glasses. As this text is read note the distance the paper is held from the eye when reading in comfort with glasses on, if they are worn. This distance should be about 12 to 14 inches. If it is much more there is real need to start the use of glasses or to have the present ones changed. Headaches and a constant state of fatigue are logical outcomes of the persistent use of the eyes with visual defects uncorrected. It is well to remember that the change may be needed as often as every six months.

BLOOD PRESSURE

In our military service we have the annual physical examination which every year is increasing its justification. One of its major functions is to check up on the blood pressure of our officer personnel. To blood pressure readings we attach a great deal of importance. But high blood pressure, like many other defects, is at least partially corrigible by the individual himself. It is probably more often associated with poor elimination and its resulting auto-intoxication than any other single condition. It is also to be looked for in those who eat, drink and smoke more than is good for them. Overweight is most often associated with excessive arterial tension. It is to be expected

in the high pressure worker who is constantly pushing the hours behind him and looking ahead to further accomplishment. It goes with hurry, worry and troubles taken to bed. To prevent the continuance of an upward trend is very important, since it always leads to serious consequences.

The bowel condition must be corrected at once by whatever means necessary. To continue good elimination we must practice eating quantities of fruit and sometimes nothing else for days. Above all things, food should be taken in moderation and coffee, tea, tobacco and alcohol should be stricken from the list entirely. Whenever possible, half of every day should be devoted to moderate outdoor exercise, such as golf or walking. Long hours in bed must become the rule. Any excess of weight must be gradually removed. A milk diet for a few days every so often is frequently very beneficial. Meats should be much restricted and fruits proportionately increased. Long fasts are not desirable for in the end they do more harm than good. Table salt had best be greatly restricted; there is quite enough of it in the vegetables that will be eaten in a proper diet. Deep breathing is very beneficial.

High blood pressure, like overweight, is a condition to which the robust individual so often falls heir. Physicians are constantly having it forced home to them in their practices that the big, hefty man knows little and cares less about how to live. Never having been sick, he expects always to stay well. Having been born strong he thinks he will remain strong forever. He abuses his body day and night and realizes it only after the damage is done. His frailer brother learns from the outset that he is not long for this world unless he watches well his step. Being forewarned he actually endures well and in the final analysis so often accomplishes more in life than he who was so richly endowed at the beginning. It is to the healthy, hardy, heavy fellow that this article is written, in the hope that it may add something to what should be a long and useful life.

Self-Serving Statesmanship

A bankrupt diplomacy and self-serving statesmanship were responsible for the World War. Foch, Pershing, Haig and Petain, with Hindenburg and Ludendorff and half a dozen stenographers, a few maps, a minimum of the so-called "experts," in a month's time could have made a more enduring peace for the world than was accomplished by the conference of statesmen which sat in Paris for two years and played and plotted with the possibilities which were created by the valor of the armies.—*Maj. Gen. J. G. Harbord.*

The Tank in the World War

By *Captain* George H. Rarey, *Infantry (Tanks)*

THE First Battle of Cambrai, November 20, 1917, was a tank battle. It was such an action as the Tank Corps had wished for; it was based on tanks, led by tanks; no preliminary bombardment was permitted, and it was fought over terrain well suited to the use of the tank. Besides having open, rolling terrain for the battle ground, the Tank Corps was supplied with the greatest number of tanks ever used in combat up to this time, a total of 476.

Included in this number were fifty-four supply tanks, nine wireless tanks, thirty-two tanks specially fitted with grapnels for clearing the wire along the cavalry's lines of advance, two for carrying bridge material for the cavalry, and one to carry forward telephone cable for the signal corps.

The First Battle of Cambrai, in its initial phases, was a great victory for tanks, for they enabled a penetration through a deep defensive zone

The Third British Army, under Gen. Sir Julian Byng, designated for the attack, consisted of two corps, of three Infantry divisions each, a cavalry corps, and one thousand guns of various calibers. The Tank Corps contribution, in personnel, was three tank brigades of three battalions each, or 690 officers and 3,500 other ranks.

All tanks were concentrated in their training areas by September 5, the 1st and 2d Brigade at Sorel and Ypres; the 3rd Brigade at Old and New Heudicourt. This concentration was in itself an undertaking of considerable magnitude; thirty-six trains being required to handle these tanks and it was necessary to make all moves and detrainments at night.

The plan of the commanding general, Third Army, was:

a. To break the German defensive system between the St. Quentin and the Du Nord canals.

b. To seize Cambrai, Bourlon Wood, and passages over the Sensee canal.

c. To cut off the Germans in the area south of the Sensee, and west of the Du Nord canal.

d. To exploit the success toward Valenciennes.

The enemy defenses consisted of three main lines of resistance and an outpost line; the three lines mentioned were the Hindenburg line, the Hindenburg support line, and the incomplete Beaurevoir-Masnieres-Bourlon line. The trenches of the Hindenburg line were sited on the reverse slopes of the ridges wherever possible and were known to be over twelve feet wide. They were protected by great bands and fields of excellent wire, nowhere less than fifty yards deep, built in great salients and flanked by batteries of machine guns. It was estimated that in order to cut this wire by the usual method, by artillery, would require a bombardment of five weeks and cost twenty million dollars.

Cavalry was given an important part in the plans for this battle. A cavalry division was assigned to push through at Masnieres as soon as a line

through Crevecoeur, Marcoing and Canal Du Nord had been taken; advance on and capture Cambrai and Paillencourt, then move with its right on Valenciennes.

The Third Corps, which formed the right wing of the Third Army, was to form a defensive flank on a line through Crevecoeur-La Belle Etoile-Iwuy, and another cavalry division was then to cut the Valenciennes-Douai line to facilitate the advance of the Third Corps toward the northeast.

The Fourth Corps formed the left wing of the Third Army. This corps was to open the Bapaume-Cambria road, occupy Bourlon and Inchy, then open the Arras-Cambrai road and advance on the Sensee canal, cutting off the enemy forces west of the Canal Du Nord.

THE ARTILLERY PREPARATION

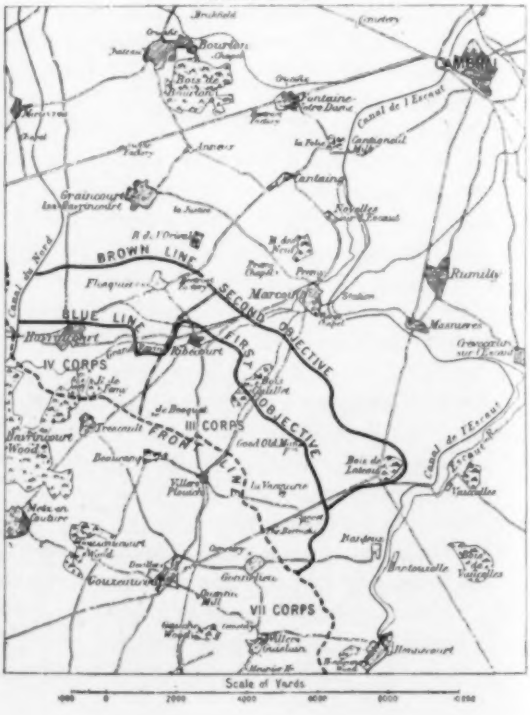
The artillery preparation consisted merely of the concentration of about one thousand pieces of artillery along the thirteen-thousand-yard front. None of this artillery was allowed to register prior to zero hour; from this hour the program was: barrage of shrapnel, high explosive and smoke shells on enemy outpost line, then to move by jumps of 250 yards at a time, standing on certain objectives for stated periods; smoke screens to be thrown on certain localities; counterbattery work to open at zero hour and bombardment to start on critical points along the lines likely to be used by German reserves.

A separate echelon of tanks was designated for each objective and each objective was divided into tank-section areas or tactical points. In each tank section, of three tanks, the leading tank was called the advance guard tank, the other two, the main body tanks.

PRECAUTIONS FOR TRENCH CROSSING

The spanning ability of the Mark IV tanks was known to be less than the width of the Hindenburg trenches, so special fascines had to be constructed and so mounted upon the tanks that they could easily be dislodged from inside the tank and allowed to roll into the trench, thus providing a support over which the tanks could cross. The advance guard tank was to approach the first trench, turn to the left without crossing, work down the trench

BATTLE of CAMBRAI
November 20th 1917



delivering broadsides into and across the trenches, keeping the defenders down; the main body tanks to make for the first trench, the leading tank to cast its fascine, cross the trench and work down to the left and around its objective. The last tank to cross on the east fascine of the second tank, then to make for the second trench, cast its fascine and cross, working down to the left as the other tanks had done. By the time the advance guard tank had rounded its objective, it was to cross both trenches on the east fascines of the other tanks, but with its fascine still in position, to make for the third trench and with its fascine provide a crossing for all three tanks.

A Train of Tanks En Route to Cambrai Showing Fascines for Trench Crossing in Position

The Infantry was divided into three forces; one force to clear the trench, another force to block the trench at various points and a third force to garrison the captured trench.

The supply arrangements were divided under two headings: supply by light railways from railhead to main dumps; and supply in the field by the supply tanks.

The First Tank Brigade dump was at Havrincourt Wood; the Second at Dessart Wood, and the Third at Villers Guislain and Gouzeaucourt. Among the items transported to these dumps were: 165,000 gallons of gasoline, 55,000 pounds of grease, 5,000,000 rounds of small arms ammunition, and 54,000 rounds for the six-pounders.

THE TANKS' ORDERS

On the evening before the battle, Brig. Gen. H. J. Elles, commander of the tanks in the field, issued his last order to his command, all of which was to participate in the coming action, there being no reserves except a few tanks held in each brigade as mechanical replacements. The order read:

1. Tomorrow the Tank Corps will have the chance for which it has been waiting for many months—to operate on good going in the van of the battle.

2. All that hard work and ingenuity can achieve has been done in preparation.

3. It remains for unit commanders and for tank crews to complete the work by judgment and pluck in the battle itself.

4. In the light of past experience, I leave the good name of the Corps with great confidence in their hands.

5. I propose leading the attack of the center division.

At zero hour, 6 o'clock, on the morning of the 20th, the whole line moved forward under cover of the mist, led by General Elles in his flag tank, the "Hilda." The enemy was overwhelmed from the start, but for a time indulged in the vain hope that the wide trenches would stop the tanks. However, when the tanks stopped, laid their fascines neatly in the trench and easily crossed over them, one of the finest fighting armies the world has ever seen completely lost its nerve. From then on, except at certain advantageous po-

How the Mark IV's Crushed the Wire of the Hindenburg Line at Cambrai

sitions, resistance was slight, and even at these places the onrush of the metal monsters under General Elles proved too much for the defenders.

SEVERAL INCIDENTS OF THE COMBAT

A duel took place between a howitzer and a tank at Lateau Wood. As the tank approached, the howitzer turned on it and fired, taking off most of the right-hand sponson of the tank, but before the howitzer could be reloaded the tank was upon it and in a few seconds the big gun was crushed in the underbrush. To the west of this wood, tanks were approaching Masnieres. The first one arrived at the bridge which crossed the Canal de l'Escaut and found that the bridge had been damaged, but as the bridge was the key to the Rumilly-Seranvillers ridge, the tank driver determined to cross it. The bridge collapsed, letting the tank down into the canal and it disappeared from view. Other tanks arriving at the bridge and being unable to cross, assisted the Infantry to do so by opening a heavy covering fire. It is reported that there was but one casualty as a result of the tank going through the bridge; "the wig of one of the crew was knocked off his head as he emerged from the tank, it floated down the stream and was never seen again. Lost to view, its memory was kept green by its owner's claim for compensation. The official mind was cruelly racked by the question as to whether a wig came under the heading of 'field equipment,' 'loss of a limb,' 'medical comfort,' 'clothing,' 'personal effects,' or 'special tank stores.'"

At Flesquieres, the 51st Highland Division, which had adopted tactics of its own, was held up and the tanks went on. As the tanks went over a ridge they came under direct artillery fire at short range. This fire was coming from a single gun which was being operated by an artillery officer. He continued to serve the gun, single handed, until he was killed, but before this could be done he had disabled sixteen tanks. His bravery aroused the admiration of all ranks. The loss of the tanks would not have been so serious had the Infantry been close up, but as soon as the tanks were knocked out; the Infantry being a considerable distance away, the German machine guns came to life and delayed the Infantry advance until the next day.

The village of Havrincourt and Graincourt was occupied by the 62d Division and its tanks after severe fighting. The tanks went on toward Bourlon but the Infantry was too exhausted to make good any further gains.

Tank Company No. 3 assisted the 29th Division in the capture of Marcoing, Bois de Neuf and Noyelles, destroying many machine gun nests at these places.

Meanwhile, the supply tanks and

wireless signal tanks had taken up the new positions as directed. A signal tank sent back information of the capture of Marcoing within ten minutes after the Infantry entered this village. The wire pulling tanks cleared away three broad tracks of all wire so the cavalry could move forward. The cavalry then assembled in Grand Ravin and near the village of Masnieres.

A GREAT TANK VICTORY

Thus, by 4 p. m. on November 20, one of the most remarkable battles of history had been won and credit for this success must be given to the Tank Corps. As far as this corps was concerned, the battle was tactically finished. From a base of about seven and one-third miles, an advance of over five and one-half miles had been made in twelve hours, across one of the strongest trench systems on the western front, without artillery preparation, and at a saving on this account alone of some five weeks' preparation in time, thousands of tons of ammunition and thousands of lives. Eight thousand prisoners and 100 guns were captured. The number of prisoners captured nearly doubled the casualties of both the Third and Fourth Corps.

A similar penetration at Ypres took three months, and while other factors, besides the Flander's swamps, may have contributed their share to the repulse of the Fifth Army at Ypres, it is self-evident that selection of proper terrain over which to use the tank is one of the most important factors in its use.

REORGANIZATION FOR THE SECOND DAY

The next day, November 21, the tank units had to be reorganized and composite companies of tanks continued to support the Infantry. New Infantry units were now in the lead but they were not fresh and they had not been trained to cooperate with tanks.

Thirteen tanks surrounded the village of Cantiang and after a prolonged fight they drove out the enemy and occupied the village. Infantry troops were held up just outside Noyelles and called for tanks. Two were sent and

On the Hindenburg Support Trench System at Cambrai, Nov. 20, 1917

in thirty minutes they had crushed all enemy machine guns, set fire to their ammunition dump and then patrolled the village until the Infantry took it over.

Tanks took the town of Fontaine-Notre-Dame twice. The first time, on the 22d, they made a six-mile journey, captured the town, handed it over to the Infantry and withdrew. The next day the Germans recaptured the town, so tanks were again called upon and twenty-four of them entered the town and engaged the enemy. The Germans retired to the tops of the houses and rained bombs and bullets down on the tops of the machines. The British Infantry were by now too nearly worn out to make good the capture of the town, so the tanks withdrew as soon as darkness came. Several minor actions were fought on the 24th, 25th and 26th, but by this time, many of the tanks were out of action and as all the Infantry was too exhausted to make good further gains, it was decided to attempt no continuation of the advance.

General Elles caused the 1st and 3d Tank Brigade to entrain and withdraw; the 2d Tank Brigade was directed to follow them in a few days' time. It was considered that the Battle of Cambrai was over.

THE COUNTERATTACK

The withdrawal of the tank brigades was nearing completion when General von der Marwitz launched his counterattack on the morning of November 30, his right wing operating from Bourlon southwards and his left from Honnecourt westwards in an effort to pinch out the salient occupied by the British. This attack failed on the German right, but succeeded on their left. The 2d Tank Brigade, which had been dismissed and was then engaged in making repairs and adjustments on their tanks, received notice of this attack at 9.55 a. m., and inside of three hours had thirty-six tanks up to the line and ready for action.

The Germans drove south as far as Gouzeaucourt, but as the Guards Division had recaptured this place before the arrival of the tanks, twenty tanks were pushed out as a screen to cover the consolidation of this locality and they remained out in front all that day beating off counterattacks. Every available man was used to try and stop the advance of the German attack. On December 1, tanks, guards and cavalry (dismounted) attacked Villers Guislain and Gauche Wood. General Haig's dispatch reports this action as follows: "Tanks were in a great measure responsible for the capture of the wood. Heavy fighting took place for this position, which it is clear the enemy had decided to hold at all costs. When the Infantry and cavalry finally took possession of the wood (after the tanks had entered the wood) great numbers of German dead and smashed machine guns were found. In one spot four German machine guns, with dead crews lying around, were discovered within a radius of twenty yards. Three German field guns, complete with teams, were also captured in this wood. Other tanks proceeded to Villers Guislain, and in spite of heavy direct artillery fire, three reached the outskirts of the village, but the fire of the enemy's machine guns prevented our troops advancing from the south from supporting them, and the tanks ultimately withdrew."

For two more days the battle surged back and forth around Bourlon, Fontaine, Marcoing and La Vacquerie,

and, owing to the enemy having pierced the British line in many places, the commander-in-chief decided that the British attack must be renewed on a large scale or else they must withdraw to a more compact line on the Flesquieres Ridge. The latter course was decided upon, and this withdrawal, which necessitated the giving up of much territory recently won, was completed on December 7.

So ended the second phase of the battle of Cambrai, and as far as the tanks were concerned, this was also the end of the 1917 campaign.

REASONS FOR THE SURPRISING SEQUEL

Several factors enter into a consideration of this surprising sequel to one of the most famous and successful battles of the World War. Whether the British G. H. Q. underestimated the intelligence of the enemy, or underestimated the possibilities of a massed tank attack, the fact remains that for some reason, they failed to furnish General Byng with sufficient troops of the right kind to hold the territory taken. Exclusive of the artillery and tanks, the force assigned to the Third Army consisted of two corps of Infantry and one of cavalry. Considering the great number of machine guns known to be in the hands of the German army, it would appear that the percentage of cavalry was too high for an action of this kind. Whether or not too much was expected of this arm is difficult to determine from the available records. Major Ellis makes the following comment upon the results obtained by the cavalry in this action: "The cavalry were also billed to cooperate. Special wire pulling tanks were employed to clear convenient, broad lanes through the wire for them, and their needs throughout were carefully considered. For one reason and another, however, the cavalry did not, after all, find it possible to take much part in the fighting."

Another factor was the failure of the British, on the day following their great advance, to call upon the French who were holding two Infantry and three cavalry divisions in readiness to assist in the exploitation of the success. Whether this was due to overconfidence on the part of the British or to some failure in liaison between them and the French is not plain, but at any rate this aid was apparently ignored and the French divisions were dismissed.

Another point to be remembered is the fact that General Elles threw his entire force of tanks into action on the first day of the battle. This was one of the reasons he led the attack in person. His entire command was engaged, and, as no reserves remained to take up the fight on the 21st, the tank units had to be reorganized, as stated, and composite companies sent forward in order that the Infantry might have some protection on the succeeding days of the battle.

Considering both phases of this battle, the lessons derived were as follows:

a. That the tank, when used "en masse," over ground suitable for its use, was a success as an offensive weapon.

b. That it was superior to artillery for destroying wire.

c. That artillery preparation was not always necessary when tanks were used.

d. That when tanks were available in sufficient numbers to make their employment effective, ample provision should be made for Infantry troops to consolidate and hold the territory taken.

e. That the old principle of holding

out reserves was still good, and applied to tanks just the same as to any other arm.

f. Perhaps the most important lesson of all, however, was the one learned by the doubting Thomases, both in and out of the service, concerning the capabilities of the tank as a weapon. The support given tank projects, by the authorities from November 20 on, was particularly noticeable. The Tank Corps had justified its existence, and from this date on mechanical warfare was an accepted fact.

The Church and Pacifist Doctrines

FOR the most part the churches which accept the doctrines of the pacifist associations are deceived. The pacifist is cunning. He approaches him whom he would win with the question that can have but a single answer: Do you desire a world-wide peace? His organization, he will tell you, is founded upon the teachings of the Prince of Peace, "Love one another." His conclusions follow in natural sequence, if man will love instead of hate his fellow, if he will only refuse to bear arms to slay and wound him there can be no war. Such, he asserts, is fundamentally a Christian doctrine.

We are amazed that thoughtful men and women cannot pierce the sham. It is not necessary that we segregate patriotism and Christianity to denounce the deception. The two may well go hand in hand for patriotism is naught else than love of home and country and a determination that right shall be made the master of might and that men, through equal opportunity, shall be permitted to love one another.

How is it that the followers of the Christ who shed his blood for mankind can say that man today shall not die as gladly that this may be a "better world"?

How is it that congregations may lift their voices in thunderous chorus to the strains of "Onward, Christian Soldiers" and condemn soldiers who battle for their conception of the right?

It is evident that any pledge which tends to forbid men to bear arms but places the world at the mercy of the forces of evil. The Episcopal church in Muskogee makes answer to others that might welcome the pacifist in their midst. A vested choir moves with solemn, stately tread up the long aisle to the altar. Before it goes the Cross, behind the Cross, the Flag. Assuredly, we would not quarrel with the priority given the one above the other, but we say—and there is no touch of sacrilege in our heart—that the two might well move side by side. The Cross—our faith, our hope, remembrance of Him who died for us. The Flag—our faith, our hope, symbol of those who have died to make this a better world.

Other churches well may cling to those emblems of righteousness, placing our homes above other homes, devotion to our land above love for other lands, and our faith above other faiths.—*Muskogee (Okla.) Daily Phoenix.*

French Regulations on Infantry

IN a previous number of the INFANTRY JOURNAL appeared a review of the Infantry drill regulations of the French army in which comparisons were made with our own drill procedure, as well as the organization of Infantry units. In this article are treated extended order, physical drill and methods of training as prescribed for the French army.

The reasons for, purpose of, and methods of conducting what they call (literally translated) "suppling exercises, combat exercises, and the development of the morale factor" do not differ from the principles accepted by our service.

By suppling exercises more is implied than is contained in our term setting-up exercises. (They deal with the latter in separate regulations for the physical training of the soldier.) The term is applied to extended order drill and is defined as a gymnastic preparation for combat intended to develop maximum mental alertness and decision on the part of the leaders and rapidity of execution by the men. No tactical situation is required for these exercises. They consist of movements executed at a brief direction or a simple signal of the instructor, such as deploying, advancing, taking firing positions, lying down, rallying (assembly), or moving instantly to face in another direction.

In extended order drill great stress must be laid on rapidity of decision and of execution. Commands are executed immediately and are generally confirmed by signals. These drills are only a study of the mechanism of certain movements which have constant application in combat. Small columns are most frequently used in the required movements since they are the least visible and the most flexible.

GROUP DEPLOYMENT

The group, consisting normally of thirteen men, deploys into two squad columns at such intervals as is ordered, with the leading elements abreast. If it be desired to deploy it in echelon the rear squad follows at from 10-40 paces as directed—normally at 20 paces unless otherwise ordered.

The group deploys as skirmishers in one or two echelons as ordered either with or without having first formed squad columns. When deployed in single rank the automatic rifleman is the base with the first ammunition carrier (substitute automatic rifleman) on his right, the squad leader on his left. The assistant ammunition carriers place themselves on the right and left of these three. The squad of riflemen deploys, as ordered, on either the right or left of the squad of the automatic riflemen, or on both sides of this squad. In the latter case the corporal and the first half of the squad goes to the right, the remainder to the left, or *vice versa*, as directed.

The normal interval between skirmishers is five paces.

The group may also deploy in two echelons. This is generally done from squad columns. The normal distance is 20 paces. The skirmishers of the second echelon do not have to cover those of the first. The group leader may prescribe a greater interval between the former in order that they

may extend beyond one or both flanks of the leading echelon.

There is no normal attack formation for the combat group. The normal deployments indicated above serve as studies of the mechanism only and are not in any sense intended to be strictly applied in combat. They suggest various dispositions which may be taken up successively by the same group without *fixing definitely* the place of any member of the group with respect to the others except in the case of the first ammunition carrier.

During combat the latter, who is also the substitute automatic rifleman, loads the automatic rifle and receives the empty magazines. One or two of the assistant ammunition carriers place themselves around him at about a dozen paces and reload the emptied magazines. The third, or additional assistant ammunition carriers, detailed for duty by the corporal as mobile ammunition carriers (pourveyeurs mobiles) leave the ammunition they have brought forward and go back to the company munitions distributing point and carry forward additional ammunition to the loading details (pourveyeurs fixes).

The loss of the automatic rifle should never cause the group to abandon its task. It continues its mission with the other means of fire at its disposal.

Most frequently the "voltigeurs" exploit by their movement the effects of the fire of the automatic rifle, but it will also happen that the "fusiliers" will themselves exploit its effects and will go forward without waiting for the "voltigeurs." At other times the latter can by concentrated fire produce momentarily a fire effect similar to that of the automatic rifle to the benefit of the rest of the group. In other cases exploitation will not result from the fire of the group itself but from that of other groups.

The data contained in the part of the regulations pertaining to combat are similar to those found in our field service and training regulations. They do not differ in principle from the doctrine we follow, although the detailed application is affected by the difference in organization of the two armies.

TECHNICAL PREPARATION OF INFANTRY

Preparation for war and to instill the will to conquer and to teach the means towards that end are the essential objects of instruction.

Instruction is divided into:

a. Those things of daily and immediate application in combat, such as practice marches, target practice, field fortification, combat exercises, etc.

b. Those intended to enhance the physical condition and morale, such as physical training and close order drill.

The general conduct of Infantry instruction consists in giving the soldier and the units the necessary technical knowledge and discipline and then applying this in combat exercises.

The captain and the commanders of higher units are responsible for the instruction of their units. The superior commander designates the objective to be attained and definitely indicates to his subordinates what he will require of them but leaves to them the choice of the means to be utilized in accomplishing the desired ends. Superiors control and orient the course of instruction. While always benevolent in nature, this supervision must nevertheless be constant and effective.

The general methods of instruction employed and the reasons for and use

of close and extended order drills and combat exercises are similar to our own. Some of the points that are stressed, follow.

When war-strength companies are formed for training, the personnel of each unit should remain under its own leaders as far as possible, each company forming its own section, etc., of the war-strength company. However, each unit must be taught teamwork with respect to other units.

The bearing of the instructor is very important. His activity and example have a great influence on the results to be obtained.

The instructor must use language suited to the mentality of his men. Lengthy explanations or those containing too many ideas must be avoided. Demonstration is preferable to explanation. Competition is a great aid to instruction. It should be utilized to as great an extent as possible.

"The school of the soldier is taught individually, that is to say, each man, having understood the desired end, should endeavor to reach it by himself aided by the advice of the instructor. The latter must know the character, and the degree of intelligence of each man and take it into consideration." This individual instruction is carried on at the same time as the group instruction. The group and section training is always held in the company or a special instruction unit if one has been organized.

PHYSICAL TRAINING

For physical training the personnel of the company is divided into three classes: strong, average and weak. The training is given under the classification of lessons, squad games and sports, and exercises of military application. The first two are given on parade or playgrounds. The last are held over varied terrain becoming progressively more difficult up to the point where the participants exert efforts as intense as they would in an attack. In the first two types suitable sport or gymnastic costume is worn. In the last type the equipment, light in weight in the beginning, is increased progressively to that carried in the field or in attack. The time devoted to physical training is so regulated that every man, no matter on what detail he may be, participates daily in some form of physical training.

Training in marching is progressive, the distances being gradually increased. March discipline must be given particular attention. Marches are made first by company, then by battalion and regiment.

Instruction in firing, grenades and the bayonet is given by qualified specialist instructors.

DISCIPLINE AND MORALE

Instruction in discipline is intended to instill in the recruit habits of order, of absolute obedience and to make him a well set-up soldier. This instruction should be made as tangible as possible. "Men really retain only that which they have seen or better yet, have done." The instructor as often as possible, instead of theoretical talks, uses demonstrations in which the man, confronted with a concrete case, is required to act. This method is applicable to instruction in saluting, guard duty, care of arms, etc.

The moral education is an indispensable complement of instruction in discipline and should be built up by means of:

1. The patient moulding of the men-

tality of the future combatants, who must be taught why it is necessary to be prepared to fight and why a nation that is determined to remain independent and wishes to live must be willing to make every sacrifice. This instruction includes the history of war, the great deeds of the regiment, the reading of the most glorious individual citations, etc. This is eminently capable of creating *esprit de corps* and is the object of a series of short talks covering those things that every soldier should know.

2. The giving of familiar talks on historical occurrences or records of daily life are deemed pertinent. These discourses must be entrusted only to qualified officers who know how to use language that the soldiers can understand and who never speak without preparation unless they are thoroughly familiar with their subject. The modality and frequency of these talks must not be prescribed. It is preferable that they be not given at regularly specified times, but spontaneously as suitable occasions arise. Every officer has his personal way of appealing to the judgment of his men, of gaining their confidence and of making them share his convictions.

PROGRAMS OF TRAINING

All instruction is based on programs of training issued by the superior unit, brigade, regiment and battalion in which are included provisions for the training of specialists, and the reservation of periods for superior unit training. The captain issues a weekly work schedule, assembles his instructors daily and indicates and discusses with them the work prescribed for the particular day. He is required to include in his daily schedule:

1. Provision for physical training, general or special;

2. A short period to be devoted to movements designed to teach the soldier to handle with facility the weapon that he fires and how to aim it.

The first period of training lasts for four months and at the end of this time the recruit should be sufficiently trained to function with his unit. The work is progressively increased up to the end of the fourth month. It is then so regulated as to require each day only so much as is necessary to maintain the standard of training. ***Overwork must be avoided.***

POINTS STRESSED IN INSTRUCTION

The chief points of instruction of troops are:

1. Increasing the morale factor by proper instruction.

2. Physical training.

3. The school of the soldier which includes the maneuvering and firing of the various Infantry weapons: the training of the squads and of the group (riflemen, grenadiers and machine gunners).

4. Close order drill of the group, section and higher units.

5. The ability to recognize the value of ground and to utilize the terrain to the best advantage. How to use the entrenching tool and the gas mask.

6. Extended order drill of the various units.

7. The training of signal communication personnel, of sappers and pioneers and the various specialists.

8. Combat exercises.

9. The rules to observe under the diverse circumstances of life in campaign (marches, camps, bivouacs, entraining, etc.).

10. The essential rules affecting the

details of administration and routine garrison duty (instruction in discipline).

PRINCIPLES OF INSTRUCTION

The instruction of troops must be conducted in accordance with the following principles:

1. Each soldier, when called upon unexpectedly to do so, must know how to handle properly any one of the weapons of his combat group and, in addition, the machine gun. Each man must know the technical use of all the arms. The school of the soldier provides the means to obtain these ends.

2. The group being the elementary unit (cellule) of combat the operation of all the weapons of the Infantry company is taught within it; the operation of the weapons of the machine gun company is taught to all the personnel in the machine gun group and in the section of the accompanying weapons (37-mm. and light mortar).

3. On the completion of this instruction each man should be able to fulfill usefully any duty whatever in the combat group and should be able to enter upon the tactical training of the group in liaison with other groups.

4. This primary result accomplished, it is essential to obtain the maximum supply of the different Infantry weapons and to assure the assignment and the training of the specialists (signallers, telephone men, pioneers, etc.). With that end in view the assignment of the various duties in the group is definitely made and the specialists of the higher units designated in view of the intensive training of each in the rôle assigned him.

On reporting, all recruits are assigned to rifle companies and receive there the individual instruction of the rifleman, close order drill and the elements of rifle marksmanship. Firing with reduced charges is begun as soon as possible.

Towards the end of the first month at a date set by the colonel, the men chosen for duty as machine gunners and for duty with the 37-mm. and light mortar section are turned over to the machine gun companies. All are instructed in the combat group in the use of these weapons. Those on duty with the 37-mm. guns and the light mortars are given a brief course of instruction in machine gunnery.

In the rifle companies the school of the soldier and the training of the group for combat are continued, each man being trained to fill any position in the group. At the same time all the corporals in the regiment are combined into one platoon for training.

PROGRESSIVE INSTRUCTION

During the first three months of training the captain assigns each man to his place in the group. At the beginning of the fourth month the first combat exercises of the section of three groups are held. By the end of this month the recruits should be ready to fulfill the duties expected of them. Beginning with the fifth month this instruction is continued through combat exercises of the group working with other groups to combat exercises of higher units up to the regiment inclusive.

To summarize: A man is qualified for straight duty with his unit when he knows how to fight in his combat group. At the end of the first period of instruction he must know in particular how to use the weapons with which he is armed; how to use the terrain to advantage; how to use the entrenching tool and the gas mask;

how to care for himself during campaign. He should also be capable at this time, of marching 24 kilometers (15 miles) carrying full field equipment.

OLD SOLDIERS AND RECRUITS SEPARATED

The instruction of the old soldier is carried on separately from that of the recruits until the latter have completed their recruit training. From then on, the former are frequently placed in the combat groups to act as examples for the latter and to assist in their instruction. The old soldiers are trained as observers, in patroling, as liaison agents, pioneers, substitutes for certain specialists, as recruit instructors and the most intelligent and energetic as squad leaders. Whenever it is possible to assemble them in sufficient number they are given combat exercises in the company or the battalion. Care is taken not to repeat too often the elementary instructional features lest they become monotonous and tedious.

The men not qualified for duty with combat units are placed in the auxiliary services where physical activity is not required. They are not trained for campaign but are subject to all the rules of discipline and all the obligations imposed by law or by army regulations, excepting those primarily designed to cover combat service. They are given training in morale, discipline, organization, military law, administration and the duties required of them in garrison as other soldiers, and in addition such drill without arms as is indispensable to permit them to take their place in a formation and move in an orderly manner from place to place. They are not given instruction in the manual of arms. The first week after they join and the mornings of the two following weeks are devoted to this instruction. After this they should not be taken from their normal duties for more than one-half day a week. They are, however, required to take part in physical training each day.

The reservists and territorials are considered as trained soldiers. They are given a short refresher course in the school of the soldier and taught any new movements introduced since their last period of training. They take part in the extended order drills up to the time when they take their place in ranks for the combined exercises of the section, company and higher units.

The specialists are detailed at the end of the fourth month of instruction unless it is absolutely necessary to do so earlier. The colonel determines the number of recruits who must receive instruction in telephony, radio, as pigeoneers, pioneers, litter-bearers, etc., in accordance with the number needed on a war footing. He regulates their instruction and decides whether it will be given in regimental schools or whether certain of them (observers, signal communication personnel, bicyclists, supply personnel) will be trained in the battalion.

INSTRUCTION OF N. C. O'S.

Instruction of the non-commissioned officers is planned with the object of developing their ability to command and instruct. It is based on the regulations as issued. No variation is permitted from the doctrine therein enunciated. A knowledge of the regulations is of no value except as it can be taught and applied. The instruction includes map exercises, terrain

exercises and combat exercises with troops.

The instructor issues a simple situation. The students issue their order without giving their reasons therefor. A critique is held at the completion of the exercise. Reports accompanied by sketches should be required after the combat exercises of the company and battalion.

The under-officers and officers of all echelons must be capable of commanding the units corresponding to their grade and the next higher unit.

THE INSTRUCTIONAL PLATOON

The instruction of the student-corporals is begun not later than the beginning of the second month of training. Normally they are grouped into one platoon (designated platoon No. 1) in the regiment. If a battalion is detached another platoon may be organized at its station.

The student-corporals are chosen from those soldiers who have shown their intelligence, their willingness to work, their robustness, a spirit of discipline and who seem to have an aptitude for command. Selection for these grades is in principle given preference over that for specialists or for various other duties. The battalion commander examines individually every man recommended by the captains, approves the list and forwards it to the colonel. Every recommendation for elimination from this list must be made by the captain or the director of the (instructional) platoon. It is acted upon by the battalion commander who reports his action to the colonel, or by the latter.

The instructional platoon once formed, its instruction is completely independent of that given the companies. In order to provide facilities necessary for their work the student-corporals are grouped in one or two rooms, as far as the resources of the garrison permit.

The instruction of the personnel of the instructional platoon includes:

1. The study of the basic elements of the regulations limiting them, generally speaking, to the important texts which the non-commissioned officers should know almost verbatim.

2. A concise knowledge of the prescriptions of the regulations pertaining to the company and the section; a knowledge of the functions of corporals and sergeants.

3. Complete familiarity with the prescriptions of the regulations applicable to the group.

4. A thorough, practical study of all the arms of the Infantry company and their employment under service conditions.

5. Thorough practice in command of a squad of rifleman and of a squad of the automatic riflemen.

STUDENT CORPORALS

At such time and under such conditions as may be prescribed by the colonel, the student-corporals are examined in the field and rated on the following points: military bearing, spirit of discipline, physical vigor, theoretical and practical knowledge, aptitude for command, aptitude as instructors. The students are then classified and their standing on this list is given great weight in making recommendations for promotion to the grade of corporal.

The student corporals destined for duty with the machine gun companies and the 37-mm. and light mortar sections form a subdivision of this pla-

toon. In each battalion they are designated by the battalion commander assisted by the captain of the machine gun company, not later than fifteen days after the platoon is formed. Their instruction continues under the director of the platoon leader.

Those persons in the military service who have a certificate of preparation for military service and the volunteers coming from the military preparatory schools are placed in this platoon. The former can be made corporals at the end of four months, the latter as soon as the law permits.

SUPPLEMENTARY INSTRUCTION PLATOONS

The colonel takes such action as is necessary in order to provide that the volunteers and men joined during the course of the instructional year have special attention and the opportunity to acquire the same knowledge as the student-corporal. He organizes supplementary platoons if necessary.

Each regiment organizes a "platoon No. 2" composed of the best corporals and student-corporals fulfilling certain conditions laid down by the colonel. This platoon functions for a minimum of three months. The students are classified after a final examination.

Its program of instruction is intended to complete the knowledge essential for an under-officer as follows:

1. A general knowledge of the Infantry regulations (including machine guns and tanks).

2. A thorough knowledge of the prescriptions of the regulations relative to the section of Infantry.

3. Thorough practice in the command of the group and eventually the section.

4. Map reading, how to use field glasses and the compass, the preparation of reports, sketching.

The student under-officers destined for duty with machine gun companies and the section of accompanying weapons form a subdivision of platoon No. 2.

The non-commissioned officers destined for duty other than in rifle or machine gun companies are first placed in platoons No. 1 or No. 2. They are then, as ordered by the colonel, given in addition special instruction in their specialties involving a complete knowledge of the regulations and the matériel of their specialty (accompanying weapons, signal apparatus, tools, explosives). The instruction of the accountants is organized by the officer in charge of the regimental administration and the paymaster.

The reenlisted under-officers must have a more complete knowledge of the various regulations of the Infantry than that which is given to platoon No. 2. They must know the prescriptions of the regulations relative to the maneuvering and instruction of the company. Above all it is important to develop their knowledge in the direction of their principal rôle which is that of acting as instructors. They must also know the elements of the paper work of the administrative unit.

THE BATTALION AND REGIMENT

The battalion commander draws up a program for a one or two months' period covering data for review or for study by the re-enlisted under-officers. The adjutant (senior N. C. O.) and the senior warrant officer, filling the rôle of section chiefs, must receive as far as possible the same

professional instruction as the lieutenants.

The colonel is responsible for the instruction of his officers. The professional instruction of the officers includes:

1. A complete knowledge of all the Infantry regulations (including those for machine guns and tanks).

2. A knowledge of and how to employ all the Infantry weapons as well as a knowledge of all the matériel that the regiment takes into the field.

3. A thorough practical knowledge of how to command their unit both tactically and administratively, as well as the ability to command the next higher unit.

4. A thorough knowledge of terrain acquired by making numerous topographical maps, reconnaissance and panoramic sketches.

This instruction is supervised very closely by the battalion commander who periodically assembles his officers, determines step by step the program of subjects to be studied and checks the results. He reports to the colonel in writing at least once a year the degree of instruction of each officer.

SUPPLY

Throughout the discussion of the offensive the point is stressed that the colonel must give the greatest personal impulsion possible to supply, particularly ammunition supply.

Our training regulations (service company) prescribe that the combat wagons, having issued their ammunition, are grouped thereafter under the control of the regiment. The French provide that the colonel may turn the battalion combat wagons over to the battalion commanders or retain them under his control as he considers best. Thus their regulations are more flexible than ours in this respect.

Pride of Service Threatened

It has been the pride, and a proper one, of the administration that economy had come to Washington. The taxpayers are glad that it did come. They have been gratefully responsive to every tax reduction. But when economy cuts the forces of national defense below the point of efficiency and destroys not only their physical strength but threatens the pride of service which is at the heart of every sound national defense, then economy has become parsimony. The methods that are used on departmental clerks to make them careful of pencils and pen points are not the methods with which to govern the administration and maintenance of the Army and Navy of the United States.—*Chicago Tribune.*

The German Army's Maneuvers

THE maneuvers of the German Army held from September 13 to 21, 1926, were of special interest because it was the first time since the war that forces larger than a division participated. The German Army is a highly trained, professional force which consists of two corps, with a combined strength of seven Infantry and three Cavalry divisions. Four complete divisions and parts of others participated in the maneuvers. The Infantry divisions of the German Army, it will be recalled, consist of three Infantry regiments, one artillery regiment of six batteries of four guns each and three batteries of four howitzers each, one cavalry squadron, one pioneer battalion, and a detachment of signal, motor train and sanitary services, totaling 11,240 officers and men. The Infantry company consists of 130 men, which is deemed the largest command that can be controlled by the captain in modern war. There are three combat platoons, each containing two groups of light water-cooled machine guns and one rifle group.

> The German army is enabled to conduct maneuvers on a large scale. Our own Army has received no such training since the war

Certain of the methods used are considered of interest. In the advance of the Infantry, emphasis was placed on the provisions in the German regulations which call for troops to push forward in their own battle sectors without regard to the success or failure of the troops on the flanks. This method was practiced in the World War and was found to be successful in many instances. The lack of conservatism concerning protection of flanks is the basis of the infiltration method of advance. In the maneuvers wide gaps between lines resulted, but there was always present a complete cooperation between adjacent units when one unit was in a position to facilitate the advance of a neighboring command.

The indirect and overhead fire of the heavy machine gun is laid down as the rule, and only exceptionally are these guns used in or close to the front line. Experimental firing was conducted last summer with a view to training the machine gunners as well as accustoming the troops to overhead fire. The only casualty from the extensive test was that of a general officer who was killed by a "short."

In the attack of a battalion the Germans consider that a battalion will occupy roughly about 600 yards, with a depth of the force of about 1,200 yards. This is a variable, of course, and which, like other tactical measures, is dependent upon many conditions.

The backbone of a defensive position are the machine guns which are distributed in great depth. In a battalion sector, the outpost line is lightly held, and only one or two machine guns of the battalion's twelve guns are allotted to this front line. Other guns are scattered throughout the main zone of defense, all sited so as to flank the possible lines of advance of the enemy. Approximately three guns are held in reserve. There are only a few riflemen

used in the defense, and these usually to protect the machine guns. Rifle units are to be used for counterattacks. Owing to the dispersion of the machine guns, no hostile artillery preparation will entirely destroy the machine gun defense, and the riflemen will always be ready for the counter blow. The principle of the elasticity of the defense in which the Germans were so apt in the later phases of the World War, remains predominant in their theory today.

In the maneuvers, artillery was greatly dispersed, guns of batteries in the open being scattered in areas as much as 200 yards square. Where concealment was available, of course, this was not done.

Tanks were simulated by contrivances as described for the maneuvers of 1925. In an attack of three echelons, one-third of the tanks led the Infantry of each echelon. Intervals between tanks were about 100 yards, and the distance between echelons was about 250 yards. German artillery regulations prescribe that whenever a tank is observed, every gun will fire on it irrespective of the mission on which the gun may be engaged.

Pyrotechnic signals used were only the white and red, the former to denote the position of the front line and

At the German Maneuvers

Upper Left: A machine gun detachment during the approach march. Note the speed in which the men are endeavoring to move from one position to the next halting position.

Upper Right: German Infantry on the march. Note the way in which the rifles are carried. The band on the hat indicates the Red or Blue force. Note the broad cuff for carrying the maps.

Lower Left: Light minenwerfer, camouflaged.

Lower Right: Division headquarters. The office of the commander of the division. Note the number of motorcycle dispatch riders. Every piece of motor transportation belonging to the Blue forces was equipped with a stiff, square, blue flag with a superimposed white open square. The Red forces were equipped with a similar flag; a red field with a superimposed open white square.

the latter calling for artillery support. This return to simplicity in firework signals is deemed necessary to prevent the confusion incident to use of too many varieties as well as to simplify supply.

Camouflage from aerial observation was stressed. All individuals were required to dig in when lying down in the open, and to cover their bodies and equipment with leaves, twigs or loose earth. Camouflage nets which can be thrown over a vehicle in a few minutes are carried by every piece of transport.

Battalion command posts were located where observation was good and where concealment was available for the necessary adjuncts. Each battalion commander was equipped with a scissors telescope, mounted on a tripod.

All units were amply supplied with motor transportation. Motorcycles were used to large extent for messengers. Division headquarters was equipped with a heavy closed motor car containing wireless and telephone equipment, convertible beds for the commanding general and his chief of staff, and office equipment essential for a division headquarters. Each platoon of a rifle company is accompanied by a light wagon drawn by two horses, for carrying ammunition and other equipment.

Field orders followed the usual form. Regimental and battalion orders were given verbally. Battalion, company and platoon orders referred to objectives on the ground, while maps were used only for orientation. Division orders on one day of the maneuvers were merely pencil memoranda to different officers concerned and issued only immediately prior to the beginning of the movements.

Night operations on a large scale were tried. Two divisions made a concerted night attack. One night a river crossing was forced, which included the laying of pontoon bridges, and the crossing of men and material on rafts. Individuals crossed the stream on bags filled with straw, a method that was found to be very successful.

The maneuver was carefully controlled by umpires, who had a complete telephone net at their disposal. This net was separate from those employed by the two opposing forces. Umpires refrained from telling commanders that they could not do this or that, but injected various elements into the situation so that the commander was obliged to decide as the umpire desired. Umpires adjudged appropriate losses.

There were evident a number of minor innovations in equipment that seem to be ingenious and practicable. For instance, motorcycle drivers are equipped with leather helmets as a protection to the head in case of accident. Large cuffs are provided on the sleeves of officers' and N. C. O.'s coats for the purpose of holding maps and other papers.

The maneuvers as a whole were marked by the great care in preparation, the extent to which the realism of actual combat was approached, and the large following of civilians who manifested unusual interest in the details of all events.

Notes from the Chief of Infantry

Policy on Command and General Staff School

A NEW policy governing the selection of students for the Command and General Staff School has recently been issued. This policy increases the number of officers eligible for the detail, particularly in the grade of captain, but it is too early at the time of this writing to predict the proportion of field officers and captains of Infantry in the next class. The former requirement that the detail was voluntary has been removed. The Chief of Infantry expects to submit recommendations for detail of Infantry officers to attend the school, between January 1 and 10. The policy governing the selection of students is quoted below:

a. Candidates will be selected as far as practicable from officers in the field grades.

1. Captains (approximately 500) who may reasonably be expected to attain the grade of major within five years from September 1, 1927, may be detailed.

2. In addition to the above, not to exceed 10 per cent of the quota of students alloted to each branch may be selected from captains who are recommended as particularly qualified for higher training by their chief of branch and who on September 1, 1927, are less than 45 years of age.

b. In any case in which recommendation is made for detail of an officer who has completed the course at the General Service School, the Army Staff College, the Staff College, the Command and General Staff School, or the School of the Line (the latter without recommendation to attend the General Staff School) the Chief of Branch concerned will submit with such recommendation a brief statement for the reasons therefor.

c. Officers detailed to take the course at the Command and General Staff School should be familiar with the organization of the division and included units, should have a knowledge of the methods of solving tactical problems and of the form and expression of field orders, and should have such grasp of the tactics and technique of the separate arms as will properly enable them, after a brief review of the reenforced brigade, to pass to the solution of problems involving a division.

d. All candidates must have an efficiency rating of at least "average" and the qualifications which will make them suitable for higher command and General Staff training.

e. Officers over 50 years of age on September 1, 1927, will not be detailed.

f. The Infantry allotment is 73.

g. In selecting the quotas from the various combatant branches, the following priorities will govern:

1. Officers retained as instructors at special service schools upon con-

clusion of duty under the length of tour of duty policy.

2. Up to one-half the quota of each arm from new graduates of the field officer's course at the special service school of the Army, immediately upon graduation.

3. Eligible officers returning from foreign service, if the date of return synchronizes with that for entering the school. If the date of return does not synchronize, and the officer requests extension of tour, he will be given such extension as will give synchronization.

4. Other eligibles in accordance with the length of tour of duty policy.

5. Other eligibles in approximate order of length of service at stations commencing with the one longest at the station.

The New Army Wagon

AN experimental wagon designed to replace the present escort wagon has been subjected to two tests by the Infantry Board. During the first test concluded in December, 1924, defects were discovered and the Infantry Board recommended certain changes. A supplementary test of the new wagon, changed as recommended, has recently been completed. The tests covering a period of two years indicate that the wagon has sufficient merit to warrant an extensive test by an Infantry regiment.

The experimental wagon is built in one unit and is not susceptible of being separated into running gear and body. It is 150 pounds lighter than the present escort wagon. The body is widened and the characteristic flaring side-boards of the present type wagon are eliminated. These changes increase the capacity of the new wagon by 18 cubic feet and permit greater ease in loading. The size of the wheels is reduced to the dimensions of those on commercial freight carrying, animal-drawn vehicles, a change which will facilitate procurement, and in case of over supply, will permit a more ready resale to commercial interests. The front wheels will swing under the body, thus decreasing the turning radius from 12 to 7 feet. The prairie schooner top is replaced by one in which the bows come straight up, rounded only at the top corners. A visor is provided to come out over the front seat to protect the driver from the elements. The brake is of such shape and manufacture that it can be made from materials found along the roadside, thereby eliminating the necessity of carrying manufactured brake shoes.

The wagon shows the influence of automotive development. Rear springs are added to lessen the severity of jolts. A foot brake will permit the driver to use both hands to control the animals. Grease holes in the hubs permit lubrication of the axles without the necessity of removing the wheels.

Exhaustive tests over poor roads and across country with compact and bulky loads of weights varying from 2,700 pounds to 4,500 pounds to determine the following were made: adaptability for cross country work, stability, durability, mobility or traction, assembly in the field, dismantling for shipment, and ability to trail behind a truck or

tractor. In addition, more detailed tests were conducted to determine the reliability of certain specific parts of the wagon.

The three greatest advantages of the experimental wagon in comparison to the present service type were found to be: first, lighter weight; second, greater body capacity; and third, smaller turning radius with the consequent greater ease of maneuvering. The greatest disadvantage is that it is not adaptable for hauling unusual loads that were formerly hauled by taking off the body of the old escort wagon and arranging the running gear in accordance with the load to be carried. The experimental wagon, however, will carry all Infantry loads.

Latest Model Escort Wagon Which Has Been Found Satisfactory for the Infantry

Changes in Training Regulations to Cover Inspections

IN the past it has been necessary for officers to refer to Infantry Drill Regulations (Provisional), 1919, when information with reference to inspections was desired. The changes in Training Regulations for 1926 will include paragraphs devoted to inspections in the rifle company, battalion, regiment and brigade.

It was the original intention to include the regulations governing routine inspections in Training Regulations No. 420-95 (Infantry Inspections and Standards). The subject matter of Training Regulations No. 420-95 will deal primarily with training inspections and since this subject is not closely related to routine inspections, it was finally decided to publish the regulations on the latter, as additional sections of Training Regulations 420-50, 420-60 and 420-80.

The Development in Rifle Sights

FOR accurate shooting with the Springfield rifle, particularly on the target range, it has been found advantageous to blacken the sights. This expedient, used better to define the front sight, although possible during target practice, cannot be accomplished during battle conditions. Training regulations encourage the habitual use of the peep sight, for the reason that a more uniform aim will probably be secured. World War lessons indicate that short-range fire will probably be the habitual rôle of the magazine rifle. The battle sight is so arranged that the rifle shoots true to the aim at 530 yards. For shorter distances, where aiming points other than the point of impact desired are necessary, poor fire effect often results.

The above considerations have caused numerous recommendations advocating changes in the sights of the Springfield rifle. A number of tests have been conducted by the Infantry Board to determine the practicability of changing the sights. Bead front sights made of ivory, monel metal and gold were first tested. It was thought that by the use of these sights, the aim could be caught more quickly with a bright, plainly visible front sight than with the present service sight; that when using the peep rear sight, a round bead front sight could be more carefully centered than the square top of the present front sight; that a bright front sight could be more clearly and accurately defined against neutral colored targets which pertain in field firing and in battle. As a result of this test it was found that, while the bright colored bead front sight permitted a quicker aim on a neutral colored object or enemy, particularly a moving one, at short ranges, the standard sight permitted a clearer silhouette and better definition of the target at the middle and longer ranges. The bead sight did not possess the strength or durability to stand the abuse that the present service sight is capable of. A new rear sight slide was then designed with a view to eliminating all open sights. The principal changes were that the battle sight was changed to a peep sight and was fastened on the top of the slide where the open "U" sight is at present, but so fastened that when the sight leaf was laid down the peep battle sight projected upward; the triangular sight on the drift slide and the "U" sight at the top were eliminated. As a result of the tests conducted with this sight it was found that the battle peep sight was unsatisfactory. The battle sight is normally used for quick sighting and close ranges. A peep sight so far from the eye made it impossible to catch a quick aim and its use obstructed the view of the field and target. The construction of the peep battle sight tested, permitted too much light around the edges and detracted from a clear and accurate aim. Protruding upward when the sight leaf was turned down, it was easily bent or broken at its junction with the drift slide.

As a result of these tests, a new set of experimental sights have been manufactured by the Ordnance Department and recent preliminary tests indicate that the sights as thus modified are an improvement which warrants an extended service test. This last experimental set of sights differ from the service sights as follows:

1. The front sight is undercut on the end toward the eye, in order to set off the top more plainly. The thickness is increased from .05″ to .08″.
2. The rear sight leaf is graduated for the latest model ammunition.
3. The battle sight is set for about 325 yards range, and is an open sight.
4. The peep sight is of .08″ diameter as are all the open sights.

It is expected that if this sight is found advantageous, drift slides containing open and peep sights with widths of .06″ and .05″ diameter will be optional, since, for National Match shooting, they may be desirable for extremely fine shooting.

The rifle also contained a wind gauge screw which had 16 corrugations cut on the circumference. Rotating the screw one corrugation results in a change of ¼ point of windage.

Test of the Caliber .22-.45 Pistol

THE Infantry Board has recently completed a test of the caliber .22-.45 pistol and from the result of this test, conclusions have been reached that this weapon is suitable for use as a gallery practice weapon.

There is no difference in the outward appearance of the experimental pistol and the caliber .45 pistol except in the size of the bore. The chief difference in the two pistols is in the component parts of the slide. The recoil-spring of the experimental pistol is shorter and lighter than the recoil-spring of the .45 pistol. The recoil spring plug and the recoil-spring guide are slightly altered to fit the lighter recoil-spring. The slide of the experimental pistol also differs from the .45 pistol slide in that the extractor is attached to the rear of the barrel. The magazine is modified so as to hold seven cartridges, cal. .22.

The experimental pistol was found to be of the same inherent accuracy as the .45 cal. pistol in both slow and rapid fire, but due to the lessened mental hazard in firing the .22 caliber pistol better scores were generally made with this weapon than with the caliber .45. The trigger pull and the balance of the experimental pistol were approximately the same as the caliber .45 pistol. The slide of the experimental pistol could be inserted in any .45 caliber pistol. The shock of the recoil of the experimental pistol, although considerable, was less than that of the .45 caliber pistol.

The opinions of the officers conducting the tests were as follows:

a. The experimental pistol can be used to great advantage in teaching form, position, trigger squeeze, and sense of time in pistol practice.

b. The instructions and training with the experimental pistol will teach the firer that "over gripping is a bad habit."

c. Flinching will be greatly reduced in firing with .45 caliber pistol after the soldier has received instruction with the experimental pistol.

d. The adoption of the experimental caliber .22-.45 pistol would materially assist in the qualification of men armed with the pistol, because .22 caliber gallery ranges are often practicable under conditions which prohibit the construction of ranges for firing the .45 caliber pistol.

e. This experimental pistol will not only afford indoor instruction for recruits and unqualified men, but is a means of keeping qualified men in good shooting condition and is a means of further developing competition shots.

Before a definite decision will be made with regard to the adoption of the caliber .22-.45 pistol, it will be tested by the Cavalry Board. It will afterwards probably be subjected to a general service test.

Record Firing for 1926

The following additional official reports on the 1926 season's record practice have been received in the office of the Chief of Infantry:

RIFLE MARKSMANSHIP

Inf. Regt.	*No. of men on rolls of the Regt.*	*No. of men who completed the course*	*Percentage who completed the course based on the No. on the rolls*	*Number of men who qualified*				*Average score per man*	*Percentage qualified based on the No. who completed the course*
				Exp.	*SS.*	*MM.*	*Tot.*		
4th	782	665	86.32	176	221	234	571	288.16	94.88
8th	565	465	82.3	168	139	158	465	295.28	100
13th	540	446	83	8	55	290	353	257.12	79.148
15th	618	571	92.4	119	185	258	562	288.014	98.425
17th	561	465	83	24	75	288	387	265.27	83.22
20th	561	449	80	26	73	298	397	269.30	88.42
22d	687	444	65	61	144	239	444	284.94	100
23d	492	329	66.86	40	82	189	311	278	94.52
24th	716	608	85	29	80	414	523	263.83	86.01
25th	673	597	98.49	63	202	323	588	284.93	98.49
30th	839	603	71.64	70	185	326	581	286.7	96.3
38th	542	345	63.64	24	38	222	304	269.04	88.11

AUTOMATIC RIFLE MARKSMANSHIP

15th	48	48	100	24	17	3	44	495.62	91.66
22d	70	69	98.57	48	13	8	69	515.52	100

MACHINE GUN MARKSMANSHIP

				Exp.	*1 cl.*	*2 cl.*	*Tot.*		
4th	186	167	89	54	60	53	167	334.11	100
8th	163	147	90.2	46	23	78	147	335.71	100
9th	151	108	71.52	0	5	100	105	278.15	97.22
13th	149	133	92.49	0	10	113	123	272.03	92.49
15th	147	132	89.73	11	31	90	132	316.909	100
17th	142	102	71.85	4	17	80	101	295.627	99.019
22d	184	137	75	4	20	113	137	301.89	100
23d	158	94	60.79		4	88	92	275	96.80
24th	116	112	96.5	1	4	100	105	277.77	93.75
25th	176	166	95	39	49	78	166	327.60	100
30th	129	108	83.70	78	30		108	33.72	100
38th	114	96	84.22	3	14	72	89	287.60	92.70

37-MM. GUN AND 3-INCH TRENCH MORTAR

4th	18	17	95	9	8		17		100
8th	14	14	100	11	2	1	14		100
9th	14	13	92	4	8	1	13		92.30
15th	19	19	100	18		1	19		100
17th	12	12	100	6	4	2	12		100
22d	17	16	94	8	5	3	16		100
23d	10	9	90	3	6		9		100
25th	19	10	100	10	9		19		100
30th	82	13	100	4	5	4	13		100
38th	12	11	91.80		8	2	10		90.9

Drill and Combat Signals

WHISTLE signals attract an enemy's attention. Commands during the noise incident to firing cannot be heard by all elements of the unit. The transmission of messages by runners cause a loss of valuable time and in forward elements results in great loss of life. Because of these facts, a simple set of hand and arm signals have been evolved. To be useful the number of such signals must be small; the signals must be simple; and the motions used in making each different signal must be distinctive.

Extensive use of the signals prescribed in T. R. 420-40, have indicated the necessity of revision of the regulation. Confusion has been caused by the dual meaning of the signal "Are you ready? I am ready." A leader of the firing line receiving the signal "Are you ready?" is required to repeat back the signal received. This repeat signal may be taken as the signal "I am ready." A separate signal has been proposed by the Chief of Infantry for "I am ready." For the same reason two different signals are proposed for the deployment and assembly of tanks.

Hand and arm signals for "Platoons" and "Leaders join me" have also been recommended since the occasions for their use seem frequent and their existence would assist in the control of the unit in an engagement.

New Equipment Approved

THE preparation of machine gun and automatic rifle thousand-inch targets has resulted in loss of valuable time, has caused additional labor and, in some cases, has required extra expense. These targets it will be remembered have been issued marked with horizontal and vertical lines only. To transform them into machine gun A, B, C, D, and E targets and the automatic rifle 1 and 2 targets it has been necessary either to reprint the targets, in posts where facilities for printing are available, or in stations not so equipped to transform them by the use of pasters.

Upon representation by the range officer at Fort Benning and upon the recommendation of the Chief of Infantry, the Ordnance Department has recently decided to issue the targets mentioned above in their completed form. The new targets will not be issued until the present supply of old targets is exhausted.

SMOKE AND TEAR GAS CONTAINERS

The metal containers for the chemical mixture for producing smoke and for lachrymatory gases are of different type, and neither container is similar to a commercial type of can. Recently, at the request of the Chief of Chemical Warfare Service, the Chief of Infantry caused tests to be made by the Infantry Board to determine the type of container for these mixtures considered most desirable for Infantry use. As a result of these tests, in which cans of the Campbell's Soup, Rumford and Royal Baking Powder type were tried out, the container represented by the Rumford can was found to be most convenient for throwing and carrying. The following specifications were rec-

ommended as being desirable for a universal candle:

Weight, ¾ to 1½ pounds.
Diameter, 2⅛ to 2⅜ inches.
Length, 4 to 5 inches.
Shape, cylindrical.

Method of firing to be controlled by one hand.

A container of the above specifications can readily be obtained commercially. This will provide greater ease in procurement.

Desirability of Foreign Service Stations

THE question of relative desirability of foreign service stations is constantly a live issue before the Office of the Chief of Infantry. Infantry officers annually state their preference for foreign duty and an effort is made to arrange the assignment desired. This of course is not always possible, because the vacancies available at the moment do not fit in with the preferences expressed by the group of officers selected at that time for assignment to duty on foreign service.

From the preferences expressed by officers before leaving for foreign service, certain stations have been noted as being more desirable than others. It was recently noted that this desirability of stations was somewhat reversed, when considered from a standpoint of the number of officers returning to the United States who had completed an extra year on foreign service at their own request. Of 18 officers returning from the Philippine Islands in four recent months, five had completed an extra year's tour, and during these same months, of 17 officers returning from the Hawaiian Islands, 13 had completed an additional year.

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Some Budget Estimates Which Affect Infantry

	For fiscal year 1928	*For fiscal year 1927*
Printing and Binding, Office Chief of Infantry	$50.00	$50.00
Mileage	765,000.00	800,000.00
Gasoline, lubricants	575,819.00	603,021.00
To convert 171 standard "B" chassis to light tank carriers		
Horses	82,500.00	900,165.00
Draft and pack animals	119,625.00	
Camp Lewis, officers' quarters	72,000.00	
N. C. O. quarters	30,000.00	
Barracks		800,000.00
Fort Benning—Barracks	465,000.00	725,000.00
Hospital	185,000.00	
Fort Sam Houston—Barracks	300,000.00	500,000.00
Camp Meade—Barracks	300,000.00	410,000.00
Tanks, repairs and alterations (war equipment)	116,200.00	129,000.00
Experimental and development work	42,500.00	80,000.00
Infantry School	33,858.00	33,858.00
Tank School	25,018.00	25,018.00
R. O. T. C.	2,900,000.00	3,911,000.00
National Matches	110,690.00	40,700.00

Editorial Comment

The 1926 Budget

THE President's budget for the War Department is now being considered by the House subcommittee on appropriations. The budget calls for an increase of about three million dollars over last year; also the addition of approximately seven million dollars for the housing program of the Army which had been procured from the sale of the War Department's surplus real estate. As the three million dollars increase, and then some, will be consumed by the Air Corps program, the rest of the Army actually finds recommendation for reduction in appropriations for its upkeep.

The most striking point about the budget figures is the provision for another reduction in the enlisted personnel of the Regular Army. The amount specified is stated to provide for 115,000, in which the increase in Air Corps personnel is to be included. In other words, the strength of the Army as previously authorized is to be reduced from 118,750 to 115,000 enlisted—another step backward that has become an almost yearly procedure. The prospects are not assuring in the budget figures, for the combat forces of the Regular Army will have less men than for ten years, and only about 10,000 men more in the Continental United States than in pre-World War days. When we consider that our Army today has new branches and arms, not existing before the World War, the difference in strength of forces between 1914 and 1926 is entirely disproportionate. In 1914 we had no developed air service, only a few machine guns, no chemical warfare, no tanks, no howitzers and other accompanying weapons for Infantry, and no antiaircraft service. The Infantry now includes machine gun companies, howitzer companies, tank battalions and companies, etc., which were unheard of in 1914. In 1914, the Army had not the additional task of training civilian components that requires a large number of men who are not available for unit training.

The Regular Army is to be the first covering force to be used in a war: it should have personnel with which to accomplish such an important mission, and it has not sufficient numbers under present arrangements. In the light of the fact, so often shown, that initial operations in war have had great influence on the conduct of subsequent events, we cannot afford to be unready. Trained soldiers will have to stand the first shock of attack. No amount of gold or silver can give to soldiers the immediate knowledge of how to conduct themselves in warfare. Military training consumes time and human energy. We cannot go into the market and buy efficient, modern soldiers when war breaks. History contains prominent examples of the military defeat and subjugation of nations with coffers overflowing with money, with the victor a lesser nation, with

national courage, resourcefulness and vision, that counted not upon money as shock troops.

National defense is the responsibility of the people through their representatives in Congress. Happily for the country, it appears that there is a general awakening to a realization that our military establishment is not up to standards which the people believe we ought to have. The hearings on the War Department appropriation bill will likely bring out pertinent points wherein our Army is deficient in size and in other features that need immediate attention.

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Discipline in the Army

DISCIPLINE is so essential to the conduct of armies that discussion of the subject is never inapropos. In an article appearing elsewhere in this issue by Lieut. Col. Weston Jenkins, the author emphasizes the point that a broader distinction should be drawn between discipline and punishment. Though the suggestions made may not be new, their application is perhaps not as general as might be.

One difficulty to be overcome is the use of the term "discipline" among civilians, especially in the schools. It is almost invariable that "discipline" in the school room means punishment, and consequently the man entering the Army can have no other conception of discipline than that obtained in his childhood.

Probably every commander in the Army has at one time or another delivered talks on discipline before men recently joined the Army or to students at camps. We have recently had occasion to notice a clear-cut and plain discussion of the subject, arranged to be delivered in a ten-minute talk. This talk, prepared by Maj. C. P. Chandler, Cav., is convincing and plain. It includes no reference to punishment. The talk is as follows:

You men will hear a lot about discipline in the next few days and weeks. Don't let it worry you. All of you who have played football, or baseball, or basketball, have acquired discipline. You have trained your minds and your bodies, so that your bodies obey the order of your minds, and both automatically obey the signals or instructions of the team captain, or the demands of the situation.

When considering discipline, bear in mind that phrase, "The demands of the situation." That you, mind, spirit and body, obey or meet the demands of the situation is just as important as that you obey orders from proper authority. In an emergency it may be more important because you may not receive orders at that particular time.

The purpose of discipline is to prepare and train your mind, your body, your whole being, to do the right thing at the right time—to meet the demands of the situation. In the Army, the demands of the situation ultimately will arise in battle. You must be so well trained, so well disciplined, that your mind and body and all its parts will function almost automatically, in spite of shock and confusion and perhaps pain, once an order is received, or, in the absence of that order, your training tells you that a certain action is the next step to be taken.

Bear this in mind when you are talked to about discipline. And when you think about discipline.

Discipline is the means to an end—the winning of victories and the ultimate victory by our Army. Discipline is not, of itself, an end. It is the means to an end.

Officers do not insist that you eat properly, live properly, dress properly, perform certain movements properly,

salute properly, fire a rifle properly, go through the manual of arms properly, and so on and so on, merely for the purpose of having you do these things properly. The reason you are told—and frankly, if necessary, compelled—to do these properly, is so that when this Army of ours is launched against the enemy it will be a well trained, intelligent, physically fit, mentally alert army, with high morale, that will carry on to victory in the face of any and all obstacles.

Keep that in mind. Discipline is the means to victory.

Discipline has various definitions. One is that discipline is that state of mind and condition of body that gives cheerful, prompt and effective obedience to orders, and rises to meet emergencies as they should be met.

Discipline is established by hard training; by thorough understanding and cooperation between headquarters and commanding officers, and between and among officers and men; by learning how things are done; by learning to obey orders without stopping to argue, even in your own mind; by learning to keep your bodies fit; by dressing neatly and according to regulations; by doing things exactly and in prescribed fashion, so that each of us little cogs in the big machine does its work smoothly and well; by saluting your officers as a sign that you recognize the authority of our Government, just as your officers salute their senior officers in recognition of that same authority.

The well disciplined soldier is neat in appearance, manly in bearing. He is erect, vigorous, alert, intelligent looking. He steps briskly, is self-confident without being conceited. He salutes officers cheerfully, respectfully, and without losing one iota of his own self-respect—that is part of the game. He obeys orders promptly, cheerfully, and exactly. He keeps himself clean, and his equipment and clothing as clean as himself. He learns the game and how to play it. Then he plays the game for all he is worth.

With discipline, added to our wonderful resources and the American spirit, victory always is possible. Without discipline, victory is doubtful, and in the long run almost impossible.

The New Promotion and Elimination Plan

THE Army read with great interest the study made by the War Department and sent to Congress last month, on the proposed remedy for an unfortunate condition that exists relative to promotion prospects among the Regular Army's commissioned personnel. This study will form the basis of a thorough investigation of present conditions of promotion by the special committee of the House Military Affairs Committee appointed for that purpose.

It will be recalled that at the last session of Congress attention was called to the position of certain Air Corps officers on the single list of promotion, and it was alleged that these particular officers were suffering an unusual hardship because of their relative standing. The War Department's committee, consisting of the Assistant Secretaries of War MacNider and Davison and General Hines, which was appointed to investigate the matter, after most careful consideration of all complaints received from officers relative to their standing on the list, came to the conclusion that, while inequalities existed in the present arrangement, any attempt to rearrange names on the list would only lead to equal or greater discontent than exists at present. They concluded that it was not humanly impossible to alter the single list so as to do full justice to a greater percentage of the officers than with the present arrangement.

The underlying motive of the dissat-

isfaction with the relative positions on the single list was found to lie in the abnormally poor prospects for promotion of a large portion of officers. This condition is due to the acceptance into the service of about 5,800 officers during the World War period. These officers, constituting about one-half of the commissioned personnel, have a length of service that varies by less than two years, and most of them fall within narrow age limits. This is the group that forms the so-called "hump" that appears in a graphical representation of ages in grade and length of service. In estimating the prospective situation in future years, considering only the losses that are normal under present conditions, incongruous situations can be foreseen, such as wholesale retirements within a brief period and an influx of replacements that will continue the evils that are apparent in the present arrangement, and also the condition of a lapse of 23 years between the time the first of the captains in the "hump" will reach the grade of major and the time the last will be promoted to that grade. It is shown that 1,254 of these captains and lieutenants have no prospect of being retired for age in a grade above that of major; also that at one time the difference in length of service between the senior colonel and the junior major will be less than two years.

By a plan presented by the War Department this unhealthy condition is to be remedied by a drastic change of promotion and retirement. It is proposed to make as mandatory an annual attrition of four per cent, by providing for automatic retirement for age in grade, and by forced retirement or discharge if the other losses do not provide the necessary outgo. A scaled compensation is to be awarded for retirement at the rate of 2½ per cent of the active pay for each year of service, or for discharge with a gratuity of $30 per month for each month of service.

To insure the proper flow of promotion a schedule is proposed whereby a second lieutenant is promoted after three years, a first lieutenant after 10 years, a captain after 17 years, a major after 22 years, and a lieutenant colonel after 28 years—provided a specified percentage in each grade will not be exceeded by the promotion.

The proposition has many points to merit its adoption. One of these is the preservation of the integrity of the single list. Any attempt to bring back the old inter-branch disputes and ill feeling engendered by more rapid promotion in one branch than in another is unworthy of consideration.

The greatest difficulty which will be encountered in the application of the proposed plan, is that which will arise when the retirement in grade, and so on, will not accomplish the annual four per cent attrition. The proposition then is to force certain officers to choose between the partial retirement and discharge provisions.

While the service agrees that something should be done about the present situation, there has developed no unified sentiment on the manner of solution. The principle of "plucking" if applied should certainly be fair to the individual plucked; he should be given a compensation that will give him a fair chance to meet his responsibilities to himself and family in civil life. It will not be sufficient for the Government to say, "It was an error to have

taken in so many officers into the Regular Army at one time. We regret the situation. Now you are going to be eliminated because we need you no longer. Go and do the best you can in competition with civilians who have had ten or fifteen years advantage over you. Go and attempt to rebuild the bridges that you burned behind you when you accepted the commission that promised you and was accepted by you as the basis of a career in the military service."

Ground Work

A SURVEY of the extent to which Regular Army, National Guard and Reserve officers participate in Boy Scout work reveals the fact that this training of the youth in this strictly non-military organization is very popular. There is no special significance to be attached to this, for many of the officers have sons of their own in the troops and, more particularly, they are interested in the production of a loyal American manhood, sound in body, trained in leadership and initiative and schooled to discipline. The purposes of scouting and the results achieved from them have a vital bearing upon the future citizenry of our country. For this reason, if no other, the Army has a stake in Scouting and an interest in what it can do to develop strong and clean men.

General Pershing has stressed the importance of the non-military phase of Scouting, agreeing with General Sir Robert S. S. Baden-Powell, Chief Scout of the World, that any attempt to militarize the thing would destroy it. If Scouting can handle between 600,000 and 700,000 boys a year in this country, training them to think for themselves, to live comfortably in the open, to plan for their patrols in camp and field, rating service above pay and the flag above all—there is no need for it to be military. It is giving us a ground work of useful manhood, young fellows who have learned what service means.

In peace, these boys are doing their share in training others. In case of war, there can be no doubt of the value derived from the training received. Discipline, respect for proper authority, and the trait of thinking for themselves in a pinch are the very stuff from which citizen armies are made.

To show the sort of work such boys can do if thrown on their own, it is sufficient to mention a recent example whereby a country troop, backed by a small post of the American Legion, put on an actual route march of 300 miles, handling every detail of ration, camp, sanitation and discipline themselves. They did so in a way that would have warmed the heart of the sternest first sergeant that ever stood in shoe leather.

No one became sick on this march, save a mildly twisted ankle that was cared for by the first-aider. Blisters, such as there were at the start, healed rapidly under proper care. Food maintained its standard. More than once, gifts of fresh bread and mountain honey made a break in the ration when friendly people came down to the fires and watched the tents go up, hearing with considerable wonder—and some doubt—how far the boys had come. Ex-service men everywhere were quick to help in this way. The bond of the camp fire drew them irresistibly and it was not long before they were explaining how they did things in the late unpleasantness.

Trained in the practical details of such a march, spending five impressionable years learning things like it, developing a sense of service, a feeling of honor and obligation to the flag, it is no wonder that C. M. T. C. and R. O. T. C. appeal to such boys, as they grow up and leave the troops. Work done in Scouting by any officer who can find the time for it, is well spent. Later on, when training of a purely military nature comes along, the ground work will be there. Scouting is not child's play, and some of it sticks.

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The Forces Fighting the R. O. T. C.

WHILE there is no danger of the mythical Red "world revolution" in this country under present conditions of life, yet the fact is that an organized movement is in progress to effect such an upheaval of the social order. One of the groups of the communist element is the "Young Pioneers of America" whose membership is recruited from the youth of the land to the extent of about 4,000. A small number, indeed, but it is only one of the twenty or so societies interested in propagating anti-patriotic sentiment among the pupils of our schools and colleges. One of the objectives of this and other societies advocating the same doctrines is the abolition of the Reserve Officers' Training Corps and the C. M. T. camps, and they have had success in effecting the elimination of several R. O. T. C. units. Their partial successes have been offset by the unusual demand for enrollment in the R. O. T. C. units in the present year, and by the many requests for the establishment of new units in other schools and colleges. The War Department cannot accommodate all the students who desire to become members of the R. O. T. C., nor can it authorize the establishment of the new units desired—all for lack of funds.

Just to show the type of material furnished for and by the "Young Pioneers of America" on the subject of the R. O. T. C. we quote from a bulletin of the Los Angeles district of the society:

Comrades, we must fight against the education we get in the schools. They are teaching us a lot of patriotism, how to be loyal to our country, and serve the bosses well. . . . If you join the R. O. T. C., dress in a uniform, learn to handle a gun, learn Army drills, are you learning music? No! of course not! You are learning to handle a gun for one purpose, to kill: Are you learning to be a soldier for fun? Just for the sake of passing time? No, you are not. Something is going to be pulled off, and that something is *W. R!* (world revolution). The R. O. T. C. teaches us to be soldiers, teaches us militarism, the R. O. T. C. makes us good cannon fodder! . . . The war to end all wars has resulted in a coming fiercer war. Let's not be fooled again. Join the Young Pioneers, the only children organization which is firmly against all capitalist wars.

And, the unfortunate part of the drive against the R. O. T. C. is that the groups that furnish this sort of anti-American doctrine are the ones that have recruited a number of well-meaning, but misguided, citizens into their ranks. These citizens do not know that they have associated themselves with the enemies of America living within its confines. These are the people who should be set aright. The out-and-out peace-at-any-price advocates or the world revolutionists are beyond relief from their mental aberration.

Reviews and Discussion

The British One-Man Tank

REPORTS from England on the so-called "one-man tank," indicate that the latest experimental model is a nearer approach to a light armored car than a tank as we know it. The machine seems to be fitted for close reconnaissance work for Infantry and tanks. In view of this purpose it appears that two men will be required, one as driver and one as observer; then becoming a "two-man tank."

The driver's seat in the tank is arranged so that he can observe the terrain very well when the tank is not threatened. This is accomplished by a movable seat. To afford the driver the protection of armor plate his seat is lowered.

The tank is capable of ascending and descending steep slopes, to cross trenches four feet wide, and to crush wire entanglements. It is easily maneuvered and can travel from 15 to 20 miles per hour on a surfaced road and about ten miles across country. Its length is nine feet, height is five feet, and width four feet. The tank weighs 2½ tons, and has armor plate of the best type and the same thickness as the latest Vickers' 12-ton tank, the machine that seems to have won great favor in the British army.

The new "baby" tank has mobility, fire power, and protection, and claims are advanced that by its use a great saving in man power and material can be effected, and that it would be effective in destroying the morale of an enemy.

Underwood & Underwood

The British One-Man Tank

New Books on Military Subjects

CAMPAIGNS OF THE CIVIL WAR, by Walter Geer, recently published by Brentano's ($5.00) at once invites contrast with the treatment of the subject by Maj. Matthew Forney Steele in his "American Campaigns." Because of the familiarity of our readers with "American Campaigns," a brief comparison of the new publication with the old book seems to be the best method of review. First, we observe that Steele divides the subject into twenty chapters, which can be paralled to the twenty chapters (less the conclusion) in Geer's book. Approximately the same number of pages is devoted to the subject: 460 pages by Steele; 447 pages, plus the appendix of 20 pages, by Geer, though the pages of the former book contain nearly 100 words more per page. We find that the principal sources available to Steele in 1909 and which he used the most in his work are also used to a strikingly similar extent by Geer. While Steele states that he did not utilize among his sources, the Official Records of the War of the Rebellion (128 volumes), yet we find only a few references to these voluminous papers in the new book. "Campaigns of the Civil War" contains thirty-three maps, in one color only, while Steele illustrates his descriptions of the campaigns and battles of that war with 232 maps showing location of troops in red and blue colors.

In the treatment of tactical and strategical lessons learned from the various battles and campaigns, Geer reaches some conclusions that differ from those of Steele, while others are credited to the Army officer-author. In "American Campaigns" the comments are those of a military man who devoted years to the study of the subject, while those in the new volume are the interpretation and evaluation of facts from the civilian historian's viewpoint. The difference in treatment of the various phases of the battles cannot better be illustrated than by quoting a paragraph from each of the books. It will be noted that Steele does not omit the names of important places that make the study of special value to the military student.

Steele—"Lee had arrived at Williamsport on the 7th and found that Union cavalry sent up by French had destroyed the pontoon-bridge at Falling Waters, and heavy rains had raised the river and made it impassable (Map 210). Lee therefore took up a strong position covering Williamsport and Falling Waters, on the ridge between Marsh and Conococheague Creeks, with his right resting on a bend of the Potomac and his left on Conochocheague Creek. Here he waited for the river to fall, and spent the time building a pontoon-bridge of such materials as were at hand, daily being expected to be attacked by Meade."—Page 385.

Geer—"On his arrival at Williamsport, Lee found that the pontoon-bridge had been destroyed by Federal cavalry, and the river was so high from the recent rains as to be impassable. He therefore took up a strong position, and began to build a bridge with what material he could find, while waiting for the river to fall. He was in daily expectation of being attacked by Meade."—Page 357.

It may be of interest to know the story of the manuscript of "American Campaigns" by Steele. The then

Major Steele was a lecturer on military history at the General Service Schools for three or more years. In 1909 his lectures were assembled in book form and a book of plates prepared, and this material was published by arrangement with the War Department and a limited edition distributed to the Army. When the edition was exhausted, and when prospect for further distribution by the War Department was impossible and the original publisher declined to reprint, the United States Infantry Association, at considerable cost, obtained such of the original plates as had not been destroyed by fire, had new plates made, new type set and printed the edition. This work is a standard for our military men. An indication of the importance attached to "American Campaigns" is the fact that the poll recently conducted by the National Library Information Bureau, to which 128 general officers and general staff officers of the Army replied, to determine a list of the most valuable books for the profession in America, Steele's "Campaigns" led the list.

The reviewer, in all generosity, cannot but conclude that the "Campaigns of the Civil War" has added but little to the military history of the Civil War, nor is it considered as valuable for the military man as "American Campaigns" which it follows so closely in the treatment of the subject.

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The Society of the Army of Santiago de Cuba has shown commendable enterprise in the preparation of a detailed history of its part in the Spanish War, made up largely of the personal narratives and recollections of active participants. The foreword is by Brig. Gen. C. D. Rhodes, and among the forty contributors we note the names of Generals Shafter, McClernand, Humphrey, Stewart, Saltzman, the Cuban, Garcia, and others. The book will make a souvenir volume of over 300 pages with many illustrations.

Publication of this inside story of an interesting period in our development before we became a world power is dependent upon receiving sufficient subscription orders to cover cost of printing.

The low pre-publication price of $2.50 a copy has been fixed. Subscription orders may be sent to Maj. R. D. LaGarde, secretary, Room 1006, Munitions Building, Washington, D. C.

In the event that insufficient subscribers are obtained all subscriptions will be returned to those remiting. It is believed, however, that the proposed book will meet with a hearty response from participants in the Spanish-American War.

National Rifle Association's Progressive Step

BY a recent action of the executive committee of the National Rifle Association, the *American Rifleman,* which for many years was familiar to shooters under the title *Arms and the Man,* becomes more closely identified with the work of the association and will be sent to every individual member of the N. R. A., without any subscription being required in addition to the regular membership fee. The annual dues have been fixed at $3.00 for the year and instead of expiring on the 31st of December, will extend for a full calendar year of twelve months from date of affiliation. This change,

plus the sending of the magazine, makes membership in the N. R. A. less expensive and more valuable than it has ever been before.

The association has broadened its program of mail matches to include competitions for all types of arms and at ranges from 50 feet up to 1,000 yards, in addition to placing in the program special matches open only to men in the uniformed service.

On January 1 the *American Rifleman* will go on a monthly basis and will be increased from 32 pages to 48 pages and cover, with the expectation of a further increase to 64 pages before the end of 1927. Several new departments are being added and the same staff of experts, qualified to give advice on all phases of the shooting game, including shotgun and big game hunting, will be retained.

The N. R. A. is, to a considerable extent, responsible for the present high standard of the Springfield and Colt and of the model 1906 and 1911 ammunition. It has worked unceasingly for the holding of the National Matches annually and for the provision of just as many other competitions throughout the country as can possibly be arranged.

The association has been in the somewhat peculiar position that civilians are inclined to think it is run by the Army, while the men in the service are inclined to think it is purely a civilian organization. As a matter of fact, the N. R. A. has done, and is doing, a great deal for the benefit of anyone who shoots—in the service or out—and the INFANTRY JOURNAL is glad to call the attention of its readers to this latest forward step.

A New Geological Survey Map

THERE is now in the making a map that will be of great value to all officers and students of military topography. And, since topography is a foundation stone of military science—and will always be, regardless of what the Jules Vernes write—it will be of general interest to know that the United States Geological Survey is now making a complete revision of its maps covering the highlands of the Hudson and a portion of the Ramapo Mountains. Since most of the officer personnel has more or less intimate acquaintance with West Point they will get added keenness for the new maps from the fact that some of the territory will be perfectly familiar to them.

The present topographical sheets of the Survey are made on a scale of 1/62,500. The new maps will be scaled 1/12,000, or a trifle more than five times as large as the old government output. The old twenty-foot contour lines will give way to ten-foot contours.

The commissioners of the Palisades Interstate Park provided the extra funds to permit the change in scaling and in contour. But the terrain covered goes considerably beyond the limits of the Harriman Park. It takes the form of a diamond, about twenty-five miles northeast-southwest by about ten miles northwest-southeast. The Hudson River from Cornwall to Stony Point forms the eastern and southeastern boundary, from which fact the West Pointer may orient himself.

The field work now being done is

under the direction of Albert Pike, who has fourteen men, in seven field parties, engaged and they will turn out their finished product next Spring. Triangulation is based on points established by the U. S. Coast and Geodetic Survey in 1852, on the tops of the hills fronting the Hudson Gorge, including Bear Mountain, Anthony's Nose, High Tor, the Crow's Nest above West Point, and Bare Rock.

Scores of new points are being located with reference to these. Hundreds of miles of levels are being run and bench marks are being set. Heights are reckoned above the datum of mean tide level at Sandy Hook. Aviators from Mitchell Field are aiding the task with military airplane photographs. The maps will revert to the quaint and ancient names for places shown.—*George Thompson Fry.*

Battle Casualties in the World War

ACCURATE statistics on casualties incurred by the American Army in the World War have recently been compiled by the office of the Adjutant General of the Army. The aggregate losses in combat for the Army were 244,173, and for the Marine Brigade of the 2d Division the losses were 11,348. While the statistics published do not include relative figures on the losses in the various branches of the fighting forces, the previously computed percentage of losses shows that the Infantry suffered approximately 90 per cent of the battle casualties.

Of the 37,568 killed in action, 1,656 (including one in Siberia) were officers and 35,912 (including 26 in Siberia) were enlisted men. Of the 12,942 who died of wounds, 559 (all A. E. F.) were officers and 12,383 (including eight in Siberia) were enlisted men. Of the 182,674 individuals who were wounded, but not mortally, 6,475 (including four in Siberia) were officers, three (all A. E. F.) were Army nurses, one (A. E. F.) was a field clerk, and 176,195 (including 48 in Siberia) were enlisted men. Many individuals were wounded more than once, the number of additional non-mortal wounds treated being 10,989.

The tables also show that 195,556 individual members of the American Expeditionary Forces in Europe (including those who died of wounds) were wounded once, 10,535 twice, 436 three times, and 18 four times. Of the grand total of 206,545 wounds, 127,228 (61.60 per cent) were caused by gunshot, 68,975 (33.40 per cent) by gas, 9,486 (4.59 per cent) by shell, 229 (0.11 per cent) by air raid, and 164 (0.07 per cent) by bayonet. In the remaining 463 cases (0.23 per cent) the records do not show the nature of the wounding agency.

The grades of the 1,655 officers of the American Expeditionary Forces in Europe who were killed in action were as follows: colonel, 6; lieutenant colonel, 10; major, 37; captain, 198; first lieutenant, 720; second lieutenant, 684. The 559 officers of those forces who died of wounds included 1 brigadier general, 1 colonel, 4 lieutenant colonels, 11 majors, 69 captains, 257 first lieutenants, and 216 second lieutenants. Of the 6,471 A. E. F. officers who were wounded, but not mortally, 2 were major generals, 3 were brigadier generals, 30 were colonels, 37 were lieutenant colonels, 195 were majors, 1,010 were captains, 2,681 were first lieuten-

ants, and 2,513 were second lieutenants.

In the following table the 244,173 battle casualties of the Army are classified by divisions:

Division [1]	*Killed in action*	*Died of wounds*	*Total battle deaths*	*Wounds not mortal* [2]	*Total battle casualties* [3]
1st	3,730	1,266	4,996	17,324	22,320
2d	1,964	719	2,683	9,063	11,746
3d	2,637	764	3,401	12,000	15,401
4th	2,160	743	2,903	9,917	12,820
5th	1,630	490	2,120	6,996	9,116
6th	38	30	68	318	386
7th	204	83	287	1,422	1,709
26th	1,587	694	2,281	11,383	13,664
27th	1,442	387	1,829	6,505	8,334
28th	2,165	709	2,874	11,265	14,139
29th	787	266	1,053	4,517	5,570
30th	1,237	404	1,641	6,774	8,415
32d	2,250	778	3,028	10,233	13,261
33d	691	302	993	5,871	6,864
35th	1,018	280	1,298	5,998	7,296
36th	466	125	591	1,993	2,584
37th	794	272	1,066	4,321	5,387
41st	59	34	93	315	408
42d	2,058	752	2,810	11,873	14,683
76th	1	3	4	22	26
77th	1,486	624	2,110	8,084	10,194
78th	1,169	361	1,530	5,614	7,144
79th	1,151	366	1,517	5,357	6,874
80th	880	361	1,241	4,788	6,029
81st	195	53	248	856	1,104
82d	995	418	1,413	6,664	8,077
83d	49	18	67	257	324
85th	123	22	145	281	426
88th	12	8	20	58	78
89th	980	486	1,466	5,625	7,091
90th	1,091	405	1,496	6,053	7,549
91st	1,134	320	1,454	4,654	6,108
92d	120	62	182	1,465	1,647
93d	467	124	591	2,943	3,534
Total divisional battle casualties	36,770	12,729	49,499	190,809	240,308
Total battle casualties in non-divisional units	771	205	976	2,802	3,778
Grand total A. E. F. battle casualties	37,541	12,934	50,475	193,611 [4]	244,086 [5]
Total battle casualties in Siberia	27	8	35	52	87
Aggregate	37,568	12,942	50,510	193,663 [6]	244,173 [7]

[1] The 8th Division did not reach the A. E. F. in time to participate in operations. The 31st, 34th, 38th, 39th, 40th, 84th, and 87th Divisions were not combat divisions and had no battle casualties. The 41st, 76th, 83d, and 85th Divisions were depot or replacement divisions, but some of their units or personnel were in combat.

[2] The figures in this column represent the number of cases of non-mortal wounding that received medical treatment and do not represent individuals. For total number of individuals wounded, see notes 4 and 5.

[3] The total number of individuals represented by the figures in this column is shown in notes 5 and 7.

[4] Represents 182,622 individuals.

[5] Represents 233,097 individuals.

[6] Represents 182,674 individuals.

[7] Represents 233,184 individuals.

The tables prepared also classify the casualties by component of the Army, by State, by commissioned and enlisted, and by engagements. The following synopsis shows the relation between officers and enlisted men:

	Officers	*Enlisted Men*
Killed in action	1,655	35,886
Died of wounds	559	12,375
Total battle deaths	2,214	48,261
Wounded, not mortally	6,471	176,151
Aggregate	8,685	224,412

A division of total casualties between the various components of the Army shows as follows:

	Officers	*Enlisted Men*
Regular Army	417	32,074
National Guard	1,831	64,382
Reserve Corps	4,574	675
National Army	1,739	127,281
U. S. Army	124	.....

Moving Pictures in Tactical Instruction

By Lieutenant Colonel H. P. Hobbs, *Infantry*

STUDENTS taking the R. O. T. C. training in the subject of tactics encounter the greatest difficulty in attempting to visualize conditions as stated in situations for map exercises and map problems. This is quite natural, since none of these students have served with or seen troops in the field. Seeing is believing, and certainly greatly assists in understanding, and greatly adds to interest. Therefore, there should be produced and issued for the training of R. O. T. C. units, moving pictures to illustrate the tactical employment of troops:

The course in tactics for advanced course students should be conducted about as follows:

a. Study and recite on the Training Regulations; squad, section, platoon, company, battalion in attack.

b. Show the class the motion pictures along the lines suggested later in this brief discussion.

c. Conduct map exercise, bringing out the tactical principles and their application to the conditions stated.

d. A series of map problems to test the student in his knowledge of tactical principles and their application to the conditions stated.

e. Having completed the course in the rifle company in attack, then in the same manner conduct a course in the rifle company in defense, then in advance guard, then outpost.

The moving picture illustrating the rifle company in attack might be as follows:

a. Moving picture. The Infantry battalion headquarters and headquarters company in close order formation.

b. Show the component parts of battalion headquarters and headquarters company.

c. Same for machine gun company.

d. Same for platoon of howitzer company assumed to be attached to the battalion for the attack.

e. Same for the rifle company.

f. Battalion command post in operation, showing each component part in action.

g. Battalion commander at observation post, giving orders for the attack to his assembled company commanders and staff.

h. Page from note book of the commander of a rifle company designated for assault, showing notes he has made while battalion commander was issuing the attack order.

i. Commander of rifle company designated for assault returns to his company. Show the company as it rests, awaiting orders for the advance.

j. The company commander, with platoon leaders assembled, points out features on map and ground in giving his orders for the advance.

k. Show the orders.

l. The rifle company moving forward in approach formation, scouts ahead, over broken ground and through woods. A flash of connecting flanking groups should go in here.

m. Shell fire falling close to groups in the approach march.

n. Scouts come under fire; show action of scouts, tracer bullets.

o. Building up firing line and opening fire fight.

p. Advance by rushes, ball ammunition.

q. Advance by infiltration.

r. Supporting weapons, machine guns, one-pounder, light mortar in action.

s. Assault fire, rifle company.

t. The assault.

u. Reorganization.

I have briefly outlined a moving picture illustrating the rifle company in attack. A similar picture illustrating the company in defense, on advance guard, on outpost, could be prepared.

Brief descriptive matter throughout the picture should be made a part of the work. In presenting such a picture to the class, an instructor should stop it from time to time and explain or bring out the important points.

The 29th Infantry at the Infantry School at Fort Benning, Georgia, could stage a series of pictures as above outlined, illustrating battle conditions as they might actually exist. The working up of the details of such a series of moving pictures should be done by the trained instructors at the Infantry School in order to insure accuracy as to tactical employment of troops and to show vividly the action of leaders and units as they would appear in battle.

Students, having seen such a moving picture as I have outlined, would go to map exercises and map problems with a very clear idea of what takes place in battle. They would be able quickly to visualize conditions stated in the problem. This inability to visualize conditions is now the greatest difficulty they have to overcome.

Moving pictures illustrating troops in battle, in addition to being of great assistance in the teaching of minor tactics, would also be of great educational value to professors at the schools, colleges and universities, and to others who now look upon military instruction as a drill.

Besides such pictures could be used to advantage at the summer training camps and even in commercial moving picture theaters, preceding Defense Day and Armistice Day.

EDITOR'S NOTE—Some work has been done toward the filming of instructional matter for Infantry but nothing so extensive as suggested in the above discussion. Attention is called to the item on motion pictures for the Japanese Army in "Notes on Foreign Armies" in the current number.

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The Steel in the Bayonet

A READER of the INFANTRY JOURNAL writes that he personally saw many bayonets broken in combat in the World War. Experiments to produce a more satisfactory blade are still being made.

The "Manual of Tanks" Reviewed

IN a previous number of the INFANTRY JOURNAL we mentioned briefly the German publication *Manual of Tanks*, by Engineer Fritz Heigl (Munich: 1926. Price 12 marks). An extended review of the book has been prepared by Capt. R. W. Corrigan, Inf., and is as follows:

The book is a careful and complete analysis of tank peculiarities and uses, directed chiefly to the end of clarifying the defense against tanks.

The author devotes the first two main subdivisions of the book to characteristics and identification, respectively. In the first he gives an excellent technical description of tank mechanics, attributing their origin to Lieutenant Burstyn, of the Austrian engineers, in 1912. Their history is also briefly sketched from the actual application of the idea by the British, in the years 1914-1915, through the period of the World War.

The second subdivision covers in great detail all models of tanks developed and employed by the nations of the entire world up to the time of writing. Description of each model includes at least one photographic reproduction, two mechanical drawings to the scale of 1:100, and two corresponding silhouettes, one of each showing front and one side elevation. The data accompanying these cover identification of all visible parts, weight and exterior dimensions, armament, personnel of crew, armor (both thickness and location), tactical characteristics, and vulnerable points. Tactical characteristics include: maximum and average speed, maximum negotiable slope, spanning ability (negotiable trench width, etc.), depth of water fordable, height of vertical obstacle passable, overturning ability (expressed in terms of single growing trees), gasoline capacity, and radius of action (kilometers). The discussion of vulnerable points goes very particularly into the defense against the model under analysis, specifying minimum caliber and type of projectile for each point selected.

The third main subdivision directly serves the chief purpose of the book, which is the standardizing of antitank combat. Its first chapter covers the function of the tanks, their approach march, and their combat methods. Diagrams illustrating British and French standard formations differ in that British 4-tank platoons are shown always in two waves, while the 5-tank French platoons form in either one wave or two. In the single-wave formation, female tanks are placed on the flanks for double envelopment of enemy resistence, when their machine guns are to enfilade the line. Comment on these formations is to the effect that the British method seems applicable to position warfare only, while the French will serve also for mobile operations.

MODERN TANK ATTACK

In the second chapter, the modern tank attack is discussed under three hypothetical situations:

Case I. That repeatedly exemplified during the World War: attack in force accompanied by masses of light tanks. The principles underlying such attack are given as:

1. Greatest possible surprise effect;

hence, omission of long artillery preparation.

2. Diversion of attacker's artillery, after a short concentration at the opening, almost exclusively to the silencing of the defender's batteries.

3. Blinding by smoke of defender's observation posts.

4. Detail to the tanks of sufficient combat planes to protect them against antitank guns not discovered before the attack.

5. Objective of attack: The line of the enemy artillery positions, or at least that of the light batteries.

Riflemen to follow the tank waves close up, using them for cover, where enemy artillery is lacking, or beyond the radius of shell-bursts where artillery is active against the tanks.

Case II. Penetration by heavy tanks, usually to break the way for masses of light tanks, etc., as in Case I. Unless the "heavies" are convertible into stationery fortresses to protect pioneers at work behind them, their passage through areas torn up by heavy-caliber craters will not make such ground passable for the light tanks. "Such conversion is conceivable, and may occur in future," says the author, "although it appears to me that this employment of such costly material is irrational and bad. Rather, such a sector should be avoided as the point of main attack."

The break-through by heavy tanks is therefore expected to be applied to sectors where large craters and tank traps are infrequent, but where Infantry accompanying weapons and forward artillery abound. The mission of the heavies is then to obliterate this resistance, which would be fatal to the light tanks alone. Being vulnerable beyond their defensive value when not in motion, the heavy tanks will presumably withdraw from the action promptly on fulfilling this misssion.

In order that the effect may not be lost before the main attack, 500 to 1,000 yards in rear, closes with the main line of resistance, the "heavies" may either carry forward a sufficient quota of foot troops, or these may closely accompany them to defend the zones cleaned out.

Case III. The raid by small detachments of unsupported tanks, breaking down enemy resistance at every favorable opportunity. This use of tanks is said to be barred in principle by the late Allies, but to have been repeatedly used since 1918 in the Riff, in Mesopotamia, and in other colonial campaigns.

An example is cited in the battle of Khan-Meislun, July 24, 1920, in which Gouraud routed the army of the Emir Feisal, until then in control of Damascus:

The French forces consisted of a strong reinforced brigade, including a battery of heavy howitzers, several field and mountain guns, and a platoon of five light tanks, in addition to a few airplanes.

The Arabians, led by the former Turkish colonel, Azmi-Bey, were of about equal strength and had 25 machine guns and 9 field pieces.

The Arabian force had limited itself to the defensive and taken post to block the French advance along the Zahleh-Damascus road, on a mountainside near Khan-Meislun. Azmi-Bey placed his Infantry in two positions, one about 600 meters behind the other, south of the road. One gun was in the center of the front line, the remainder being posted on the right

flank, where some Infantry was echeloned to the rear. Reserves were held on a road behind the lines. The position was good with regard to command of terrain, effective blocking of the highway, and observation, but in protection it was poor. This was insufficiently afforded on the north by a dry stream bed, while on the south it was almost entirely lacking. If passively defended, therefore, the works could be encircled.

The French observed correctly that the Sheriffian army offered battle on terrain that permitted the use of all the attacker's armament. Hence the plan of attack called for an immediate frontal assault to pin the defender down, followed by envelopment of his left by cavalry. The engagement was, however, to be decided otherwise, and more quickly.

At 6 a. m., earlier than intended, the French artillery began to exchange shots with the enemy batteries, which fired to such good effect that they silenced one field battery before the 155s put them out of action. About 7 a. m. the French advanced to the attack, the Senegalese on the right, the 415th Infantry on the left with its flank prolonged and covered by the tank platoon.

The Arabian fire from both lines of the double position caused many losses; but the appearance of the tanks on the flank immediately brought about the evacuation of the first line, the garrison of which withdrew into the second. This was then made the target of a heavy artillery concentration. The further advance of both tanks and riflemen caused a general panic and the flight of personnel from the second position, while the tanks in passing the enemy batteries shot their ammunition into flames.

The French losses were 80 killed, wounded not given. Azmi-Bey fell beside his battery.

The way to Damascus was open.

Commenting on this engagement, the author points out that it would certainly have been more costly to the attacker and probably of different outcome, had not the tanks come in on the defender's right with startling effect.

OPEN WARFARE USE OF TANKS

The third chapter of this section observes that most of what precedes has to do with position warfare,—a natural thing, since out of that condition grew the tanks.

The possibility of speedy Infantry carriers, able to follow closely such raiding or exploitation detachments is touched upon, the chapter closing with a reference to the problem of development, since "in this case the progress of technique has been faster than that of tactics."

The fourth chapter analyzes tank weaknesses, such as inability to bestride trenches wider than about 45 per cent of the tank's length, limited vision and deafness of the crew, difficulty of assuring accurate fire while in motion, with steps taken to date in overcoming these defects.

DEFENSE AGAINST THE TANK

Next, the author goes into conduct of the active defense by Infantry more or less lacking in antitank weapons, as he says the Germans and Austrians are. In outlining the principles of such defense by small units, he disavows any purpose of defining details. Action to be taken is considered under the conditions of Cases I, II, and III, of the second chapter.

Defense in Case I

1. Position to be taken on terrain difficult for tanks. Antitank guns to

be sited in thick woods, deep trenches, or rocky ground.

2. All mass formations, whether of reserves or of troops preparing to counterattack, at all costs to be avoided on ground negotiable by tanks. If unavoidable, such masses to be surrounded by antitank guns.

3-8, Inc. Special efforts to be directed to identifying the tank attack before its beginning, so that timely shell fire may be laid on all assembly points behind the attacker's front and position in depth may be taken up by defender. Great emphasis on importance of perfect camouflage for personnel, matériel, and works, as a vital aid in the defense.

Finally, and apparently most important of all, "*hold on*, for the conduct of the defense must be to *let the tanks break through, but wipe out the enemy Infantry.*"

Defense in Case II

Heavy tanks alone: Defense practically as in I.

Heavies preceding light tanks: Use of 13 or 15-mm. machine guns against flanks or rear of heavy tanks at not over 100 yards range recommended, but otherwise practically the same procedure as in defense against Case I.

Defense in Case III

Given the conditions of mobile warware, the defender to pick his ground for unsuitability to tank operations, and where possible to detail machine guns in advance for concentration on the tanks' observation slits. Three guns are given as the ideal for concentration on one tank.

OTHER POINTS TREATED

The sixth chapter, concerning tanks against tanks, concludes that the female is no good in such combat, but that the light tank with a field gun in a rotary turret is enabled by its mobility to cope with the heavy tank.

The seventh, regarding direct-fire guns, recommends that they be placed not in the front line, but within the forward kilometer of the position in depth. The 37-mm. gun is mentioned as being too light for this purpose.

Other chapters have to do with airplane counterattack (which the author considers unlikely to succeed except with the American .50-caliber Browning), supporting artillery, usual Infantry weapons, gas, and flame-throwers. A brief space is devoted to refutation of the assumption that electric projections, or the "death-ray," may nullify progress made in tanks and airplanes.

Natural and artificial obstacles, mines, and other antitank gear are as fully and carefully treated as the scope of a small book permits. Self-explanatory diagrams illustrate the text.

By serving the purpose of bolstering German morale, the work inevitably gives many valuable hints of the probable course of tank employment. A noteworthy feature is the fact that it lacks the rancor which has permeated many post-war German books.

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Regular Army Infantry Activities

Progress of Infantry Training

THE Chief of Infantry in his annual report remarked that the training of our Infantry is progressing very satisfactorily. There are some commands that are enabled to devote more time to training for disciplinary and combat efficiency, owing to more favorable climatic conditions, more spacious terrain for field exercises, and more time available for actual training. The sacrifice of a certain element of efficiency that the Infantry cannot avoid is due to conditions of administration and upkeep of posts over which the commanders have no control. The strong recommendations by General Allen for amelioration of housing and other unsatisfactory conditions ought to be heeded.

The training during the present winter follows the normal garrison routine. Schools of all kinds are in progress, with instructors, in nearly all cases, being graduates of one or more of our service schools. While the subjects covered in the schools are generally quite similar, some commanders are laying more stress upon certain features. For instance, the 22d Infantry (Lieut. Col. W. Krueger) is making particular effort to develop trained communications and intelligence personnel, a daily one-hour period being devoted to regimental schools in the above subjects for men from the battalions. It is expected that, by this means, each battalion will have sufficient trained personnel to operate efficiently in command and communication exercises. This regiment also has a school for machine gun noncommissioned officers and certain selected privates from each machine gun company, that is being held under the supervision of the regimental machine gun officer in order to insure uniform methods and standards in each machine gun company of the regiment.

DIVISION OF DUTIES

Special attention is given in some regiments to the division of responsibility for training within companies. Each platoon, section and squad leader is held accountable for the training of his respective command. While this is laid down as a principle in the War Department's orders, yet there is a diversity in manners of execution.

The 29th Infantry (Col. J. B. Gowen) is having considerable success in company administrative duties by requiring strict division of responsibility, somewhat along the following lines:

Company Commander—Responsible for the proper administration and government of his company. While retaining responsibility, he supervises the proper performance of the administrative duties which he has assigned to his junior officers.

Mess Officer—A lieutenant. Super-

vises and operates the mess; checks purchases, expenditures, etc.

Property Officer—A lieutenant. In charge of property and property records. He is responsible to the company commander for the replenishment of property and clothing. He supervises the operation of the tailor shop. He supervises all construction.

Administrative Officer—A lieutenant. In charge of orderly room and supervises preparation of reports, returns and correspondence. In charge of recreation room.

The above illustration is for a rifle company. Mounted organizations use a similar method, assigning one officer in charge of stables. One officer, in addition to his other duties, is placed in charge of athletics. Company administrative duties are so rotated that each company officer will have an opportunity to learn each phase of company administration, prior to the expiration of his tour of duty with the regiment.

INTEREST IN RIFLE SHOOTING

Marksmanship is not overlooked on the winter's program of training. The method adopted by one regiment is indicative of what is being done generally throughout the Infantry this winter to stimulate interest in shooting.

The primary object of the program in effect in the 7th Infantry (Col. F. J. Morrow) is to develop the weaker shots of the organization. Small-bore rifle teams were organized within the companies and were required to compete against each other in regularly scheduled matches with the ultimate purpose of determining the championship team of the company. All matches were conducted in accordance with the N. R. A. regulations and appropriate prizes were awarded.

Upon the completion of the matches within the company, each organization was divided into groups of ten, the members of each group being men of approximately the same shooting ability, and individual matches are now being conducted to determine the champion of each group. Various methods and many different individual matches were to be arranged, with this objective: *The recruits, unqualified men and poor shots to be given the maximum of training and the largest allowance of ammunition to fire.* Appropriate prizes will be awarded.

Later, each company will organize a company team consisting of the five best shots with two alternates. This team will be announced in orders as the company team of the particular organization and will be entered in competition against the company teams of the other organizations within the battalion and regiment, for the purpose of determining the battalion and regimental championship.

A regimental team consisting of the best fifteen marksmen in the regiment will be selected after the close of the competition firing to represent the regiment in the N. R. A. small-bore regimental match.

Schedules are to be arranged to give each man in the organization an opportunity to fire the .22-caliber rifle several days each week and at least twice each month to shoot the service rifle at 200 yards, slow fire and rapid fire on the "A" target.

COMBAT TRAINING

The 10th Infantry (Col. D. T. Merrill) is now using its newly conditioned squad combat, bayonet and grenade

course. The course is arranged as follows: As the squad advances over the crest of a hill it encounters a trench and shell holes, some not occupied and others with one or two men. At the end of the course there are still a few figures to represent the retreating forces and to see whether or not the corporal will endeavor to overtake them with the bayonet or use the rifle. The targets throughout the course are so arranged in groups that the corporal will have to direct and maneuver his squad at all times in order to run the course successfully. All dummies have a white face painted upon them so that the squad leader and judge can readily see the targets as they advance to them. Some targets are also arranged so that the corporal should halt his squad in one of the trenches and use the hand grenade before attempting to advance.

Organization Day of Fourth Infantry

THE celebration of the organization day of the 4th Infantry was held at Fort George Wright, Wash., on November 8. The occasion was the 115th anniversary of the Battle of Tippecanoe.

The day was most successful, starting with the presentation to the colors of men who have joined the regiment within the past year. An address by the chaplain was followed by formal guard mounting, mass calisthenics and a field meet. Following the field meet, the post soccer team played the Kimberly Tunnels team of Kootenay, B. C., champions of the East and West Kootenay leagues. The game was close throughout, but the greater experience of the Canadians finally brought them victory. In the evening each company gave an elaborate dinner, families and friends being invited. After dinner a very pleasant dance was held in the post gymnasium.

The post was thronged with visitors throughout the day, while the dance served as a fitting climax to the celebration. The mayor and the city council of Spokane were guests of the commanding officer, while two former regimental commanders, Col. C. C. Ballou, and Col. Ira C. Welborn, were also present for the festivities.

The popularity of the post and regiment among the citizens of Spokane was further enhanced by the participation of the troops in two parades in the city, one on Armistice Day and the other on the occasion of the visit of Queen Marie of Rumania. The post has assisted in every way possible in making a success of any worthy civic celebration attempted in Spokane. This effort on the part of post personnel has more than paid for itself in the warm welcome extended the uniform in the city.

A very elaborate souvenir program was prepared, consisting of pictures of personnel of the regiment, the regimental history and the program of events. The proceeds from this advertising are being utilized in the development of an athletic field at the post, which will be a credit to the post and to the city.

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Company Libraries

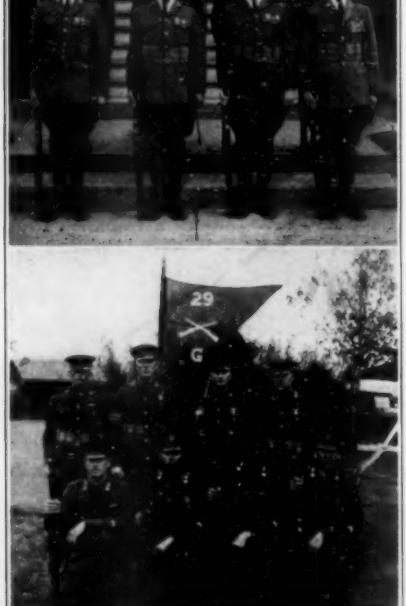
THERE are a few companies which have not subscribed for the INFANTRY JOURNAL for 1927. Start the year right! Subscribe now!

Here and There With the Regulars

THE Chief of Infantry's Combat team for 1926 includes the following squads in addition to those whose names have already been published in the INFANTRY JOURNAL:

34th Infantry—Company A—Pvts. 1st Cl. Joseph Kwiatkowski, William R. Hoback, John H. Wood, Mack C. Willard and Pvts. Leber Boffa, Jr., John R. Langley, Samuel Shmuglen and James W. Wheeler.

26th Infantry—Company F—Corp. John H. Soltys, Pvts. 1st Cl. Shelton Armes, Lee Morris, Ralph Newsham, Pvts. Robert V. Prince, Thomas Cochran, Arthur Ayre and David Husted.



Members of Chief of Infantry's Combat Team
Upper: 11th Inf. (Co. B)
Lower: 29th Inf. (Co. G)

5th Infantry—Company A—Corp. Waldo A. Siller, Pvts. 1st Cl. Benjamin J. Gramas, Neil R. Graves, Daniel Sunee, Theodore Powers, Mitchell J. Dumont, Arthur J. Guay and Pvt. Harold F. Rich.

29th Infantry—Company G—Corp. Stanley M. Kuhn, Pvts. 1st Cl. Hubert L. Chamblee, Allen E. Hodges, Harry B. Phillips, Harry E. Volz, Lynden E. Fournet, Dug Morgan and Roy R. Wilson.

①

A COMPETITIVE TEST in the 11th Infantry for the three-month period ended November 30, resulting in Company C being determined the best rifle company. The best mounted company was Company H. Company A had the best barracks and grounds and Company L the best kitchen.

①

IN THE AUTOMATIC RIFLE record practice by the Company Officers' Class at the Infantry School, 152 officers qualified and only one failed to make the grade. The average score was 550.16 or 33.12 points more than that made by the previous year's class. Capt. A. R. MacKechnie was high man with a score of 660, which tied that of Capt. D. B. Hilton made the previous year.

①

COMPANY L, 65TH INFANTRY, stationed at Henry Barracks, Cayey, Porto Rico, has just published a handsome volume containing the history and achievements of the organization. A striking feature of the write-up for each man of the company which includes the length of service, is that the

"recruit" has had four years' service while the average for the private is 7½ years. The noncoms. are real old timers, the four ranking sergeants having an average of 24 years' service.

The company has an enviable record for efficiency. In 1926 every man on the rolls of the organization at the beginning of the target season qualified as marksman or better with the rifle with an average of 300.126 points; 100 per cent qualification was also made with the automatic rifle and pistol, and 87.04 per cent with the bayonet. It has won the regimental honor, the "Jarvis Efficiency Trophy," two years in succession. It was cited by the regimental commander on March 24, 1926, for having no soldier tried by court-martial and no soldier absent without leave for the 12-month period, and for passing the annual corps inspection without a single adverse comment.

Capt. Carl E. Driggers, the company commander, and his officers and men are to be highly congratulated on their splendid record for efficiency.

①

THE FOOTBALL TEAM of the Tanks at Camp Meade, Md., won the Third Corps Area championship for the fifth time in six years when they defeated the strong Fort Eustis eleven at Camp Meade on December 4, by a score of 14 to 0. The Tanks had previously defeated Fort Howard 19—6, Fort Hoyle 14—0, and Carlisle Barracks 27—0, in winning the northern division title. Fort Eustis defeated Langley Field, Va., and Fortress Monroe in the south, and came north with an exceedingly strong team.

The Tanks team showed up well in their games with civilian institutions being able to hold Loyola College of Baltimore down to 6—0, although Loyola defeated Johns Hopkins 33—0.

The Tanks at Meade have always been represented by strong football teams and their 1926 eleven, though slow to develop showed real class at the end of the season. Uffalussy, Tank School fullback, is one of the best soldier football players in the Army. His work was excellent throughout the year. Danadich, end, and Trimble, tackle, were outstanding stars.

Members of Chief of Infantry's Combat Team

Upper: 3d Bn., 20th Inf. (Co. K)
Center: 10th Inf. (Co. G)
Lower: 31st Inf. (Co. L)

Great credit should go to Lieut. Robert B. McClure, the recreation officer at Camp Meade, who ably coached the team. Lieut. McClure formerly played on the Naval Academy team.

①

A COMPETITIVE MOUNTED night patrol problem was recently held by the 29th Infantry, with Lieut. Col. A. L. Singleton in charge. The object was to teach mounted messengers how to carry messages, perform reconnaissances, and care for their horses at night under simulated service conditions. This ride was arranged to test the riders' abilities to accomplish their mission properly in the minimum time with their mounts still in good condition. No contestant who did not fulfill those requirements was allowed to place. There were other conditions prescribed and a list of penalties with values assigned to each. The exercise was very successful and served as a valuable training feature for the mounted men of the regiment.

①

THE FOOTBALL TEAM of Fort Snelling met the teams of eight schools and colleges during the last season and though on the losing end of most of the games, made a creditable showing in each. Most of the players were from the 3d Infantry. Capt. S. F. Howard, of that regiment, coached the team.

Chief of Infantry's Combat Team
Combat Squad (Co. E), 22d Infantry

Chief of Infantry's Combat Team
Combat Squad (Co. L), 3d Infantry

①

THE 5TH INFANTRY has established a regimental community chest to which all members of the command are requested to donate one day's pay. Based on this collection a budget will be prepared for each year's charity and all regimental donations will be apportioned for the year therefrom.

All requests for contributions, civil or military will be submitted to a board that will administer the fund. In drawing up the budget the board will allot definite amounts to each well established charity and will reserve a substantial amount for unexpected calls and to meet emergencies in the regiment until well along in the budget year.

①

TROOPS OF THE 12TH INFANTRY and other representatives of the Army who spent the greater part of 1926 at the exposition at Philadelphia have returned to their stations. Nothing but words of praise were given to the contingent on its splendid showing.

Items on the National Guard

Distinctive Apparel for Peace Time

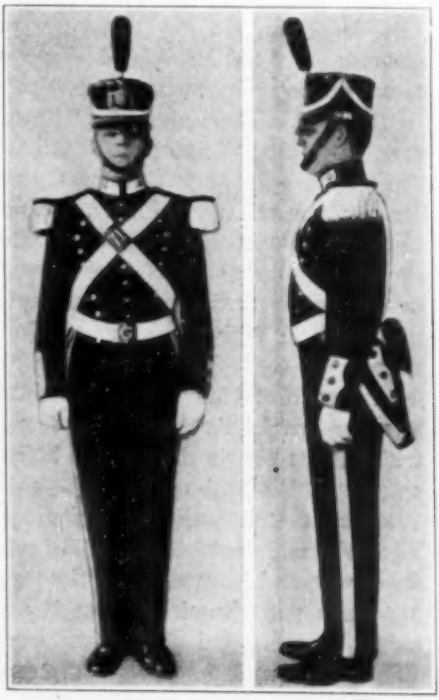
THE 71st Infantry, New York National Guard, commanded by Col. Walter A. Delameter, is one of the several National Guard commands that now parades in a dress uniform. The occasion of the review of the regiment on November 16, in honor of Maj. Gen. C. P. Summerall, was also the event of the first public appearance of the regiment in its newly acquired uniforms. In style the new outfits are the same as the old blue and white full dress uniforms in which the regiment appeared up to 1916.

By a special effort, and a commendable one, the 71st was enabled to outfit every officer and man in the snappy and appealing uniform. The shakos and other parts of the uniform were purchased from funds raised by special social and athletic events.

With uniforms such as these, when public demonstrations and parades are in order in New York, the Marines will no longer receive all the applause from the sidelines because of the pleasing effect of their blue uniform. No longer will the only chests to expand be those of the Navy and Marine Corps personnel as they receive the hand of the multitude.

That a dress uniform adds to the morale of a command goes without saying, and none other than the Chief of Staff of the Army stated that it was his belief that all regiments, both of the National Guard and Regular Army, should have distinctive uniforms for peace-time wear.

The *New York Telegram*, in commenting on this matter at the time stated as follows: "The workaday garb of the Army and the National Guard is only tolerable on celebrative occasions because it is duly ordained by the authorities. Olive drab, in the very essence of its usefulness as an indistinguishable hue for campaigning, fails utterly in the matter of style,



The Full Dress Uniform of the 71st Infantry, N. Y. National Guard

niftiness, swank and color. To ordain a return to the dark blue of pre-war days without redesigning the uniforms of the Army would be a serious mistake. In resuming dress uniforms the authorities will have to take into consideration the changes in taste which have come in the last two decades. But it can be done."

Seventy-first Infantrymen, the INFANTRY JOURNAL congratulates you on your enterprise.

National Guard Service in World War

By CAPTAIN CHARLES S. COULTER, *Infantry*

THE United States has never been a military nation, meaning that never has there been a large standing army maintained. However, the country has been engaged in almost continuous warfare and its Regular Army has rushed here and there, making necessary a great dependence upon the State troops that started as chartered commands and have grown to the present divisional organizations which will take front rank in any future grave emergency. Until the World War we had but two components in our Army in the field. These were the "Regulars" and the "Volunteers." All of the National Guard was grouped with the patriotic and the political organizations which were hastily pressed into service. Hence the perfectly natural mistake of confusing a gallant regiment like the 20th Massachusetts Volunteers of Gettysburg fame, and its descendent the 2d Massachusetts Volunteers, of Spanish-American War fame, with such troops as those which broke and ran at Bladensburg in the War of 1812 or at Bull Run, and numerous other places in the Civil War. The evidence was, and is, present for the true historians and chroniclers, but it requires research, and that means long and arduous and not always interesting work, therefore the original error has been picked up and repeated.

During the World War, a new system was adopted, making our tremendous Army a thing of three components plainly designated. The Regular Army divisions started with the primary digits and at the time of the Armistice seven complete divisions had landed and the 8th was landing. Of these the 1st, 2d, 3d, 4th, and 5th saw much and varying action and made all Americans proud of their fighting abilities. The 6th occupied a sector and marched to battle, breaking the hearts of the brave soldiers who voluntarily carried equipment for which there was no transportation. The 7th was in a lively defensive sector.

The second component of our field army was composed of National Guard divisions and numerical designations began with the New England 26th Division. The records of these divisions are the cause of this article and they will be taken up later. The third component, the National Army divisions, comprised what were the true "volunteer" divisions of former wars, and their designations began with the New England manned, and Camp Devens trained, 76th Division and ran upward.[1]

[1] A statement of battle casualties of all divisions will be found on another page of this number of the INFANTRY JOURNAL.

Occupying a large place in the history of the World War are found the following National Guard divisions: 26th, 27th, 28th, 29th, 30th, 32d, 33d, 35th, 36th, 37th and 42d Divisions. Of these the 26th and 42d Divisions were only preceded by the 1st Division in landing in France, and they followed close on the heels of the premier into the battle line. There has been some dispute as to which first landed in France. Records of the War Department show that the 26th and 42d were moving at the same time and because of shipping difficulties, that the 26th landed in France "in September, October, and November, 1917," and that the 42d, "arrived in France between the middle of October and the middle of December, 1917," so that, if there be any advantage, it lies with the Yankees. Before proceeding to the records of the separate divisions, it is worthy of mention that the hardest worked division was not the 1st nor the 2d, but a National Guard outfit, the 32d which, after it started, was not given any time out, except to move over to another part of the line. It is equally interesting to note that, in a study made by a board of officers in Washington recently which had for its purpose the analysis of the major operations into separate battles, the 32d achieves the same number of battle honors as the 1st, and one more than those allotted to the 2d.

In considering the records of the National Guard divisions, this analysis will be referred to, as it offers the fairest comparison of the real battle achievements of the different organizations. In addition, it is proposed to quote the actual dates of one of the doughboy regiments of each division. The 104th Infantry of the 26th Division, will be the first regiment shown.

The 26th Division, as has been shown, landed in France in 1917, and went to the 2d Training Area, near Neufchateau for training. Early in 1918 it went to a sector near Soissons for training with the French and in late March and early April it relieved the 1st Division north of Toul and occupied a sector of its own. The 104th Infantry record gives a good picture of the divisional activities and it follows:

Chemin-des-Dames sector (Ile-de-France), Feb. 6-March 19.
Toul-Boucq sector (Lorraine), March 30-June 26.
Pas Fini sector (Ile-de-France), July 3-July 14.
Champagne-Marne Defensive, July 15-July 18.
Aisne-Marne Offensive, July 18-July 30.
Rupt sector (Lorraine), Sept. 5-Sept. 11.
St. Mihiel Offensive, Sept. 12-Sept. 16.
Troyon sector (Lorraine), Sept. 17-Oct. 8.
Meuse-Argonne Offensive, Oct. 13-Nov. 11.

Under the provisions of section 5, General Orders No. 16, War Department, 1921, the regiment is entitled to the following battle honors: Lorraine, Ile-de-France, Champagne-Marne, Aisne-Marne, St. Mihiel and Meuse-Argonne. Under the proposed system of battles this list would be changed to read: Lorraine, Ile-de-France, Marne, Oureq, St. Mihiel, Consenvoye, and Damvillers.

The 27th Division and the 30th Division landed in France in the late spring of 1918 and were sent to the British area not alone for training, but for battle. They formed our II Corps, and never served with the other American divisions. The 105th Infantry had the following battle participation:

Dickebusch Lake and Scherpenberg sector (Flanders), July 25-Aug. 13.
Ypres-Lys Offensive, Aug. 19-Sept. 3.
Somme Offensive, Sept. 24-Oct. 22.

Battle honors for the foot troops of the two divisions, under G. O. 16, are: Flanders, Ypres-Lys, and Somme Offensive. Under the analysis these become: Flanders, Ypres, Bellicourt, and Selle.

The 28th Division landed in France in the spring of 1918. It was soon sent to the British for training and shortly was transferred to the French for further training. Almost immediately it was attached for duty, brigaded with two French divisions. The 109th Infantry had the following battle participation:

Chateau-Thierry sector (Champagne), June 28-July 14.
Champagne-Marne Defensive, July 15-July 18.
Aisne-Marne Offensive, July 18-Aug. 6.
Fismes sector (Champagne), Aug. 7-Aug. 17.
Oise-Aisne Offensive, Aug. 18- Sept. 7.
Clermont sector (Lorraine), Sept. 19-Sept. 25.
Meuse-Argonne Offensive, Sept. 26-Oct. 10.
Thiaucourt sector (Lorraine), Oct. 17-Nov. 11.

Under G. O. 16 the units of the division receive these battle honors: Champagne, Champagne-Marne, Aisne-Marne, Oise-Aisne, Lorraine, and Meuse-Argonne. Under the analysis these change to: Champagne, Marne, Ourcq, Vesle, Merval, Lorraine, Argonne Forest, and Woëvre.

The 29th Division arrived in France in June and July, 1918, and went into line early. The 113th Infantry credits are:

Centre sector (Alsace), July 26-Sept. 23.
Meuse-Argonne Offensive, Oct. 5-Oct. 30.

Battle honors under G. O. 16 are: Alsace and Meuse-Argonne. Under the analysis system these become: Alsace, Damvillers, and Consenvoye.

The 32d Division arrived in France in February and March, 1918, and in May went into line, and from that time on the division had no rest periods. It is the one division that has a very inadequate picture drawn of its service by its battle participation dates. For the 125th Infantry, these are:

Centre sector (Alsace), May 18-July 23.
Aisne-Marne Offensive, July 27-Aug. 8.
Oise-Aisne Offensive, Aug. 18-Sept. 6.
Meuse-Argonne Offensive, Sept. 26-Nov. 11.

Battle honors under G. O. 16 are listed as: Alsace, Aisne-Marne, Oise-Aisne, Meuse-Argonne. Under the analysis system, one gets a much clearer view of what the division accomplished, these honors becoming: Alsace, Ourcq, Vesle, Champagne, Merval, Juvigny, Montfaucon, Romagne, Cunel, Buzancy, Dun, Foret-de-Woëvre.

The 33d Division saw its first line service in the British area, after which it returned to the American portion of the line. The 129th Infantry has these battle credits:

Amiens sector (Picardy), July 27-Aug. 5.
Somme Offensive, Aug. 8-Aug. 20.
Verdun-Fromereville sector (Lorraine), Sept. 8-Sept. 25.
Meuse-Argonne Offensive, Sept. 26-Oct. 21.
Troyon sector (Lorraine), Oct. 26-Nov. 11.

The following are the present battle honors, according to G. O. 16: Picardy, Somme Offensive, Lorraine, Meuse-Argonne. These would change to: Picardy, Chipilly, Lorraine, Montfaucon, Romagne, Consenvoye, Woëvre.

The 35th Division landed in France in May and June, 1918, and saw its first service in the Vosges, as did so

many other divisions. The 137th Infantry achieved these credits:

Gerardmer sector (Alsace), June 19-Sept. 2.
Grange-le-Comte sector (Lorraine), Sept. 21-Sept. 25.
Meuse-Argonne Offensive, Sept. 26-Oct. 3, Oct. 14-Nov. 8.

These become battle honors under G. O. 16, as follows: Alsace, Lorraine, Meuse-Argonne. In the battle analysis they become: Alsace, Lorraine, Montfaucon, Damvillers.

The 36th Division had but one experience in line, and this was unique. With no sector training, it was sent to relieve the 2d Division in the French Fourth Army, which was assisting the American First Army in the Meuse-Argonne Operation. The 141st Infantry was in this operation from October 5 to 29, and it received the battle honor: Meuse-Argonne. This, under the analysis becomes Blanc Mont.

The 37th Division arrived in the summer of 1918 and soon was sent to the well-remembered Baccarat sector. The 145th Infantry has these credits:

Baccarat sector, (Lorraine), Aug. 2-Sept. 14.
Avocourt sector (Lorraine), Sept. 23-Sept. 25.
Meuse-Argonne Offensive, Sept. 26-Oct. 3.
Pannes sector (Lorraine), Oct. 7-Oct. 16.
Ypres-Lys Offensive, Oct. 28-Nov. 11.

Its battle honors under G. O. 16 are: Meuse-Argonne, Ypres-Lys. These change to: Lorraine, Montfaucon, Audenarde, if the analysis is put into effect.

The 42d Division is the last to account for. As has been shown, it arrived in 1917, and had an active life until the Armistice and then went into Germany, sharing with the 1st, 2d, 4th and 32d Divisions a place on the outpost line of the bridgehead. The 165th Infantry had the following credits:

Luneville sector (Lorraine), Feb. 28-March 21.
Baccarat sector (Lorraine), April 23-May 13.
Esperance-Souain sector (Champagne), July 5-July 14.
Champagne-Marne Defensive, July 15-July 18.
Aisne-Marne Offensive, July 25-Aug. 6.
St. Mihiel Offensive, Sept. 12- Sept. 16.
Essey-Pannes sector (Lorraine), Sept. 17-Sept. 30.
Meuse-Argonne Offensive, Oct. 5-Nov. 10.

The battle honors under G. O. 16 have been approved as follows: Lorraine, Champagne, Champagne-Marne, Aisne-Marne, St. Mihiel, Meuse-Argonne. These will be amplified if the analysis is approved to the following: Lorraine, Champagne, Chalons-sur-Marne, Ourcq, Vesle, St. Mihiel, Exermont, Grandpré, Buzancy, Sedan.

The National Guard acquitted itself very well indeed, in the greatest of wars, and the record made by the National Guard was but a repetition of the records made by the very same regiments (though under different numerical designations), in the previous wars of this country.

In spite of opinions of certain critics, the National Guard has a definite fixed place in our first defense line, and it can rest on the record as it stands. A National Guardsman has every reason to feel much pride in his component of the Army of the United States.

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Basic Military Training

NATIONAL GUARD company commanders are learning the value of the publication "Basic Military Training" for use of the private and the N. C. O. The training regulations contained in the book are changed up-to-the-minute, and they are in handy form for soldiers. The special price in quantities of ten or more is most attractive. Write the Book Department, Infantry Association, for information.

In and Around the Armories

THE Tampa (Fla.) Board of Trade has recently put out a display card, 7 x 11 inches, printed and bordered in red, white and blue colors, with a red, white and blue silk cord attached, which sets forth in no uncertain terms the backing which that organization gives to the National Guard. This card is displayed in windows of business concerns throughout the city.

The printed matter contained on the card reads as follows:

You Owe America Something

This firm approves of its employes affiliating with the National Guard. Defense of the Land is an imperative duty of every citizen of military age. A great, rich nation which cannot defend its homes is in the same category with the owner of a fine building who ignores fire insurance thereon. National Defense is represented in Tampa by the 116th Regiment of Field Artillery. You are urged to investigate service therein. A place will be found where you can do useful, constructive service for America.

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THE 159TH INFANTRY of the California National Guard recently held a successful entertainment at Oakland which was attended by thousands. The funds raised will be used for athletics, recruiting and the promotion of military activities and target practice.

Ⓘ

THE OREGON NATIONAL GUARD held a test mobilization on October 27, in accordance with orders from corps area headquarters. A large percentage of all units were present at the specified hour, 10 p. m. The Portland troops paraded in full field equipment following the completion of the usual preparations for mobilization.

Ⓘ

YOUTHS OF PASADENA, Cal., who volunteer may receive instruction in close order drill, revolver and machine gun training, to be given by members of Company H, 160th Infantry, commanded by Capt. W. R. Jackson, according to plans recently made by the organization. No obligation for enlistment in the company is required. However, the plan may develop in the trainees an interest in things military and assist the recruiting of the organization in the future.

Ⓘ

THE GROUP INSURANCE PLAN of the National Guard of Kansas which was initiated about two years has been discontinued.

Ⓘ

Tell Your Congressman

If you believe in preparedness, tell your Congressman you would like to see Congress make decent provision in its appropriations to carry out in full the Defense Act of 1920.—*El Paso Herald.*

Reserve Officers' Department

C. M. T. Camps and the Reserves

By Captain K. H. Knowlton, *Infantry Reserve*

WITH the coming of the new year, plans are in order for the 1927 C. M. T. camps. In preparing for these camps it is necessary to try to put our fingers on any faults which remain after six years in the work.

Last summer was my third with the C. M. T. C. So, although my experience is limited compared with some of the Regulars who have attended all the camps since 1921, still I am no neophyte, and perhaps being an outsider may have a little different slant at the subject.

I have a suggestion!

In 1926 I was at Jefferson Barracks. The command, rationing, amusement, demonstrations and instruction were all excellent. The camp was clean and healthful, and everything from the first medical examination to the receipt of return travel money ran smoothly and without hitch. But, there seemed to me to be one fly in the ointment, one spot of rust in the barrel: the companies were too large.

The boys were superimposed on the 6th Infantry, which was an excellent idea in itself, and of necessity, this made the average company about two hundred strong. Too many! Not a doubt of it! The company commander could never learn to know even a fraction of his men by name, and he could only efficiently command them by an effort equal to what he might be called upon to put forth in the first month of a general mobilization. The platoon commander, usually a Reserve second lieutenant, was called upon to handle a war-strength platoon. Fine training for him, but seventeen-year old boys need closer supervision than can be given by one newly commissioned college undergraduate.

But you say, "There are not enough Regular officers, and therefore the large company." Granted, and here is my solution.

Let each Regular company receive unto its bosom two hundred candidates, as of yore. Instead of organizing as a company, let it be organized as a battalion. The company commander becomes the battalion commander. Three Reserve captains, and seven Reserve lieutenants are assigned to him. Behold his company officers and his adjutant! His two hundred odd boys are divided into three companies with a strength of, say, sixty-five each, the Regular enlisted personnel (which is to assist with the training) is divided by three, and you have your organization ready to go to work.

Of course, being an Infantry officer, I speak throughout of Infantry—the queen of battles with the dirt behind her ears. But there! I'm getting my quotations mixed.

Further details follow. The Regular Army lieutenants would be used solely for demonstrations, auto rifle, one-pounder, etc., and for specialist instruction of the advanced students in map making, patroling, use of weapons and what not. Enough additional Reserve officers should be sent to camp so that all athletic and recreational work would be lifted from the company officers. During the afternoon when the men are at athletic games, battalion officers' schools should be held. Here criticisms should be freely made and the work of the next day gone over and explained, because my camp would not only be a C. M. T. C., but would train the Reserve as well. Also, the battalion school would make unnecessary the two additional weeks in which the Reserve officer instructor is supposed to prepare himself for his job, would therefore cut down his tour from six weeks to four and would thus save money.

INSTRUCTION OF RESERVE OFFICERS

The battalion commander in addition could keep the closest kind of supervision over the company commanders, correcting them not on the spot, but at short company commanders' meetings held after the battalion school. He should in other words act in an advisory capacity, keeping away from actual command as much as possible.

As for the Regular major, he should act as regimental commander, and should have a Reserve major attached to his headquarters as executive officer. The enlisted personnel would be freely employed as instructors as at present. Camps should be as small as possible, probably six hundred boys, i. e., one of my provisional regiments, would be found an ideal number, although twelve hundred Infantry students could be managed.

CLOSER SUPERVISION POSSIBLE

The advantages of my organization should be obvious. The candidate himself will be better cared for, he will receive more personal supervision, and will be known by name and reputation by his platoon commander, and at least by reputation by his company commander. Company esprit de corps is what we try for; be the company sixty or two hundred strong, and that esprit will be better if each individual knows every other individual in his organization, and feels, in addition, that he is known personally, and personally watched by his officers.

The advantage to the Reserve officer is so obvious that it does not need detailing. Actual practice in command of troops is so far ahead of anything that can be offered by any other method of instruction that its superiority is beyond question.

And the Regular Army captain? He can learn something too. In any war (worthy of the name) he will never command a company, but chances are good—mighty good—that he will command a larger organization, which will be officered by Reserve captains and lieutenants. He needs practice with these men to learn their strength, and weakness when they are actually in command and he can, perhaps, stand a little practice himself in the art of being a field officer, who commands enlisted men indirectly, inactively and by suggestion, instead of directly, actively, and by example. It is one thing to command a company, war strength or peace strength, and quite another to command a battalion.

But you say, "There isn't enough money to order out so many Reserve officers for one month?" I say to you, "Order the individual out less frequently!" Better four weeks in actual command of troops than a total of two months in the best "fifteen-day" camps that have so far been conducted. I know whereof I speak because in addition to my three tours with the C. M. T. C. I have had three two-week details.

To sum up, I believe that my suggestion offers the following advantages: small companies, therefore better supervision and esprit de corps; better training for a larger number of Reserve officers; experience for Regular officers more in line with what will be expected of them in case of war.

Re-assignment of Junior Officers

PROMOTIONS of Reserve officers in certain branches and grades have been held up for some time on account of lack of assignment vacancies under authorized tables of organization. The War Department is endeavoring to offset the threat of stagnation in promotions by requiring strict compliance with the requirements of tables of organization. Thus if the tables provide that a captain shall be assigned to a certain position, such as adjutant of a regiment, no officer of another grade can be assigned to that position. This applies to all other grades. If a second lieutenant has been designated to a position normally requiring the assignment of a first lieutenant under tables of organization, the second lieutenant must be relieved and a first lieutenant assigned to the vacancy.

In the past, it has been the policy of certain divisional headquarters to approve recommendations for the selection of personnel presented by regimental and unit commanders. In some cases second lieutenants awaiting promotion to the grade of first lieutenant have occupied advanced positions temporarily, in order that the process of promotion and adjustment of vacancies within the division might be accomplished with the least amount of friction and misunderstanding. "This system," in the 91st Division, as announced in its bulletin, "has built up a homogeneous and harmonious divisional organization." Regret is expressed at the wholesale relief of selected personnel, which have been assigned upon recommendation of unit commanders after thorough investigation and conscientious thought. However, "thought must be given to the efforts of the War Department in the endeavor to overcome the handicaps now existing in the way of the promotion of Reserve officers. The reliefs being made at the present time appear to be for the personal advantage of the officers relieved, and temporarily available for another assignment."

Previous instructions provided that only personnel living within a certain vicinity, allocated to certain units, could be assigned to these units, and those instructions are now inoperative. Under the present instructions, California, for instance, as the divisional area of the 91st Division, will be called upon to furnish personnel for the division, and no matter where an officer may reside, he may be called upon for assignment to fill a vacancy in any part of the State, as long as there are officers unassigned and vacancies existing for his grade.

What is the War Department General Staff?

By Lieut. Col. T. J. Moronoy, *General Staff, Res.*

WE hear a great deal of the General Staff these days and there are a great many Reserve officers who do not know what it is all about. The War Department General Staff is separate and distinct from the General Staff with troops but the divisions are analogous to those at corps areas and with divisions. A brief word of explanation, therefore, may not be amiss, for a more complete understanding.

The War Department General Staff officer has two paramount functions—first, to plan for war in the event an emergency of this kind should arise; second, to render professional aid and assistance to the Secretary of War and the Chief of Staff. To do either effectively he must know troop duty as well as General Staff duty. The War Department General Staff officer of the Regular Army comes to the General Staff from troops and his detail is limited to four years—after that he goes back to duty with troops.

The Honorable Elihu Root, Secretary of War in President Roosevelt's cabinet, is generally credited with being the father of the General Staff as it was established in 1903 under his administration and the theory was that, "the principal advisers of the head of a fighting army should be fighting men."

The maximum personnel of the War Department General Staff in peace consists of the Chief of Staff and four assistants selected from General officers of the line; 88 other officers of grades not below that of captain; not more than two officers from each noncombatant branch, and a suitable number of Reserve officers, including those who hold commissions in the National Guard. Note here that the civilian components of the Army are specifically named and at present six Reserve officers are on duty with the War Department General Staff and four National Guard officers who hold Reserve commissions and are dual status officers.

The War Department General Staff is organized into five divisions, G-1 (Personnel), G-2 (Military Intelligence), G-3 (Operations and Training), G-4 (Supply), and the War Plans Division, known as W. P. D.

The duties are distributed as follows:

G-1 is charged, in general, with those duties of the War Department General Staff which relate to the personnel of the Army as individuals, and under this division comes promotion, assignment, procurement, decorations, etc.

G-2 is charged, in general, with those duties which relate to the collection, evaluation and dissemination of military information. This division is responsible for military maps, military attachés, press relations and numerous other appropriate duties.

G-3 is charged, in general, with those duties which relate to the organization, training and operation of the Army. It is this division that handles mobilization plans, schools and publications, troop training and organization.

G-4 is charged, in general, with those duties which relate to supply and it is this division that is responsible for equipment, construction, transportation, and preparation of the budget

estimates for necessary appropriations by Congress. It might be of interest to state here, however, that the budget estimates for training the Reserves is handled primarily by Reserve officers in G-3.

The War Plans Division is charged, in general, with those duties which relate to the formulation of plans for use in the theatre of war of the military forces, separately or in conjunction with the naval forces. This division is subdivided into G-1, G-2, G-3 and G-4; in the event of war the division divides into two parts, one of which takes the field as the nucleus of General Headquarters, or G. H. Q. as we knew it in the A. E. F., the other continuing to function as the War Plans Division, War Department General Staff.

It can readily be seen that no distinct division lines can be drawn as many matters affecting one division of necessity affects two or more so that coordination and cooperation between the divisions are absolutely necessary.

An officer should have all the requisites of a good staff officer if he is to make a success of his duties in General Staff work; not a "rubber stamp" or a "yes man." When called upon for his opinions they should be given freely and frankly but once a policy is decided on he must give it his wholehearted support no matter whether it conforms to his original ideas or not. He must consider all branches and all arms for the general efficiency of the Army, and not confine himself to selfish consideration of his own favorite.

The War Department General Staff can therefore be easily compared to the board of directors of any mercantile concern, bank or business and it is in fact the board of directors of the Army.

This is, of course, only a brief synopsis, but every officer should know, at least in a general way "how the Army functions as a whole" and not confine his vision to his own particular branch. To know is to understand, and Reserve officers should know that every subject pertaining to the Organized Reserves passes over the desks of Reserve officers on duty with the War Department General Staff. They surely have the Reserve project at heart and they have the opportunity of expressing their opinions.—*90th Division Bulletin.*

Heard in Reserve Circles

THE Department of Oregon, Reserve Officers' Association, played a most important part in the enrollment of candidates for the Citizens' Military Training Camps held in the Northwest during the past summer.

Three weeks before the opening of the camps the applications had only reached fifty per cent of the maximum required. Responding to an urgent appeal from the national headquarters of the organization, Lieut. Col. Clarence R. Hotchkiss, president of the State Department, conferred with Col. F. T. Arnold, chief of staff of the 96th Division, and a letter was sent to every Reserve officer in the State, asking assistance and cooperation. This was followed by a telegram from Colonel Hotchkiss which was supplemented by a letter from the same source.

The response was splendid. Practically every chapter and every member had some part in the campaign, and

with such loyal support the efforts of the department were certain to be successful. A final checking of the returns shows that Oregon had exceeded the allotment assigned to her.

THE STRENGTH of the Officers' Reserve Corps increased from 95,154 on June 30, 1925, to 103,829 on June 30, 1926—a net gain of 8,675. During the fiscal year 12,205 appointments were made and 3,530 members of the corps were separated from the service. Of the latter, 507 resigned, 686 were discharged, 312 died, 84 accepted appointments in the Regular Army, 1,562 appointments terminated, and 379 appointments were either declined or cancelled. Of the officers appointed, 4,842 were Reserve Officers' Training Corps graduates of the school year ending in 1926 and 299 were graduates of the Blue Course at Citizens' Military Training Camps held during the summer of 1925. On June 30, 1925, there were 421 Reserve officers on active duty. During the ensuing fiscal year 15,817 Reserve officers were placed on active duty, 16,023 were relieved from active duty, five were killed as the result of accidents, leaving 210 on active duty on June 30, 1926.

During the same period the strength of the Enlisted Reserve Corps increased from 5,115 to 5,775, principally in the Infantry and Air Service sections. On June 30, 1925, there were two enlisted reservists on active duty, 718 were called to active duty for 15 days' training during the fiscal year, and 702 were relieved from active duty, leaving 18 on active duty on June 30, 1926.

Recreation vs. Desertion

The appropriations made for recreational purposes for the Army and Navy, together with their desertion rates for the last seven years, is as follows:

	Annual per capita recreational appropriations		*Percentage Desertions*	
	Navy	*Army*	*Navy*	*Army*
1920	$3.25	$2.93	4.2	1.37
1921	5.75	2.33	6.1	4.57
1922	7.41	1.06	3.2	3.27
1923	5.20	.94	4.4	6.40
1924	5.55	.63	6.9	7.03
1925	5.00	.70	4.2	7.39
1926	4.36	.62	3.2[2]	8.13[1]

[1] Estimated, based on experience of first 6 months.
[2] Estimated, based on experience of first 8 months.

Military Notes on Foreign Armies

Furnished by the Military Intelligence Division, G. S.

France

Reduction of French Army

Notwithstanding newspaper reports of the reduction of the French army which have recently appeared, no law or decree changing the length of service has been passed since the law of April 1, 1923, which fixed the term with the colors at eighteen months.

A project is being prepared for submission to the Chamber of Deputies which, if adopted, will reduce the service with the colors to a period of one year. Several minor reductions have been effected as the result of a series of decrees carried out in accordance with the policy of economy inaugurated by the present government. Among these, two may be mentioned. On September 17, a decree issued disbanding thirteen military hospitals as a measure of retrenchment. In future, when military hospitals are not available, military personnel will receive treatment in civilian hospitals.

On the same date, another decree abolished the French Remount Service. The Civil Breeding Service, which is under the Department of Agriculture, and the Army Remount Service, although separate services, have always worked together. The Remount Service has operated primarily as a distributing agency so that its abolishment is not as radical an act as it might at first appear. In future the Minister of Agriculture, through the Civil Breeding Service, will buy all horses and mules required by the army.

Entrainment of a Tank Battalion

A test entrainment of a tank battalion under emergency conditions recently occurred, which shows the value of preparation and the keeping of carefully revised plans of operation for instant use when the occasion arises.

The tank regimental commander was advised at 9 a. m. that one battalion of his regiment would entrain at 4 p. m. the same date. Information was immediately imparted to the battalion and company commanders at an officers' meeting, the formal entraining order being in their hands at 10.15 a. m. A train containing exactly the required number and type of cars was ready on the military switch at 2.30 p. m. Loading of troops and equipment was commenced at 3 p. m. and entirely completed at 3.45 p. m. Equipment included tanks, trucks, rolling kitchens and all other combat equipment. The entraining and detraining of this battalion was accomplished with practically no confusion. Immediately after detraining the train was inspected by a railroad official and found not to have been damaged in any way.

It is believed that the maximum amount of training can be obtained from a test of this kind. The actual loading of the equipment of a tank organization on a train far excels any substitute form of training in loading.

Air Mission to Japan Preparatory to the sending of an air mission to Japan to consist of an air service officer and a noncommissioned officer, the French air service was recently circularized for applicants. The qualifications required are that the officer shall be a qualified pursuit pilot trained in air acrobatics and familiar with all questions relating to aerial gunnery and aerial combat; the noncommissioned officer to be an engine mechanic familiar with the upkeep and maintenance of all types of French aviation engines.

The allowances of the members of the mission are of interest. The officer is to receive a monthly salary of 1,500 yen and travel allowances of 7,000 yen to cover the round trip. The Japanese government in addition is to insure his life for 20,000 yen. The noncommissioned officer is to receive a monthly salary of 700 yen with 4,500 yen as travel allowances. He will not be required to fly.

Japan

Military Educational Films A second military educational film has made its appearance in the moving picture houses of Tokio from whence it will be sent to other cities in Japan.

This new film, like its predecessor "Colonel Tachibana," was produced under the joint auspices of the War Department and the general staff. The first film, "Colonel Tachibana," had as its motif the glorification of the patriotism of the Japanese soldier. It was very successful in this notwithstanding the fact which came to light after the film was released that the hero of the story, who was supposed to have given his life under most heroic circumstances, actually was alive and well and rather resentful of the premature reports of his death.

The new film entitled "Tatakai" or "War" shows the various phases of combat and is most useful both for propaganda before civilian audiences or for instructional purposes for the army itself.

The picture deals with a type combat situation and depicts the various stages of the action from the time that the two forces are approaching one another, the meeting of patrols, the meeting engagement, followed by the deployment and ending with the launching of the main attack and its successful conclusion.

The system used is interesting. Each of the phases is introduced and explained by a series of animated drawings followed by actual pictures showing the same movements being carried out by individuals and units. For example, there first appears a map of the theatre of operations on which various pointers and arrows are made to move about to show the advances and deployments that take place, the sending out of scouts and their various movements. The scene then shifts to actual pictures. In this manner all the movements of the Infantry, cavalry, field artillery, and air service throughout their participation in the action are shown; the auxiliary arms appearing only in the pictures of real scenes in a most realistic manner.

Infantry troops were shown performing their usual functions in battle. On several occasions, where bodies of enemy troops were sighted by patrols, messages were sent to the rear by means of dogs equipped with a small

harness in which were pockets where the messages were placed. In an advance over grassy terrain, squad rushes of twenty to thirty yards were employed to push the advance. Auto rifles were numerous on the firing line, the teams consisting of three men.

There were several scenes of the operation of cavalry patrols. The principal pictures of cavalry action, however, consisted of some really fine riding by a lone horseman pursued by a group of enemy cavalry over extremely rough country, the horseman finally effecting his escape by swimming a wide stream. In another scene, the evils of the neglect of security measures at a halt were shown by the success of a sudden cavalry charge on an Infantry company halted and in disorder on a road.

The film is very cleverly worked up and its proper reception by civilian audiences proves its value as a propaganda agency.

Proposed Change in Length of Service According to the present plans of the War Department, which will be submitted in the Diet in December, the length of active service in the Infantry arm is to be codified as follows:

Generally speaking the length of active service in the Infantry will be eighteen months. To those who have successfully completed the course in military training in middle or higher schools, the period will be twelve months. To those who have received no training in schools or under the Young Men's Training Act, the period will remain the same as at present—twenty-two months and twenty days.

This provision illustrates the importance attached by the military authorities to the new system of military training in schools and of young men not in schools, and the real inducements offered to youths to submit themselves to such instruction.

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Bishop Decries Belittling of Defense Forces

There is today in certain quarters a disposition to disparage and belittle our Army and Navy and to decry all measures of preparedness as tending toward militarism, and to condemn our participation in the World War as mistaken and as having accomplished nothing. Such a view is as harmful as it is false and foolish. The people who take that position were themselves defended and protected by those who gave their lives at the front. Our Army and Navy deserve our gratitude, our support and our appreciation, and I am proud that one of the great bays of the nave of this cathedral is to be the Army and Navy bay, and is to stand as a striking symbol and reminder of the place which they hold and of the noble service that they rendered.—*Bishop Manning at the Cathedral of St. John the Divine.*

Notes on the Infantry Association

The Annual Meeting

THE annual meeting of the Association was held on December 20, in the Infantry Building at Washington.

The proceedings of the meeting are not available at the time this issue goes to press, but several of the points brought up for consideration are these:

During 1926 the INFANTRY JOURNAL was published at a cost in excess of revenue received. This condition has obtained since the present style of INFANTRY JOURNAL has been established, and does not seem to be remediable under the conditions of the low dues and subscription rate of three dollars per year, with the high standards of printing, paper and illustrations that are maintained.

Paid-up membership in the Association increased approximately 200 on the close of the fiscal year, November 30, over the same date in 1925, and an increase of over 660 in 1924.

The Book Department operated with a profit but not quite sufficient to cover loss in the operations of the remainder of the institution.

The Infantry Building, representing a large part of the self-created endowment of the Association, was again unsuccessful in netting a return commensurate with the investment. By only a relatively slight increase in revenue from this source the Association would have operated at no loss. There is this feature of the Infantry Building, as an investment, however, that does not enter into the annual reports at this time; that is, that the accretion of the value of the property is far in excess of the carrying charges. Besides, there is no doubt that eventually the building will net an adequate return annually.

The difficulty in financing the Association has its root in the fact that the high cost of production of the INFANTRY JOURNAL is not met from dues and subscriptions of members, by a margin of twenty-five per cent. The receipts from dues and subscriptions fall short of providing for the one item of printing alone. Discussion has been had on a number of occasions on raising the dues and subscription rates so as to approach somewhat the rates of the professional journals of the other services. Since 1904 when the INFANTRY JOURNAL was first published as a quarterly, the annual dues and subscriptions have been $3.00 per year. Now with the JOURNAL appearing monthly and with printing costs nearly four times as much per issue, the dues remain the same.

A survey of other activities of the Association shows a large increase in the work of the personal service department. Approximately ten per cent of our membership was furnished personal information of one kind or another during the year.

Publicity obtained on matters of con-

cern to the Army and the Infantry was a considerable item of expense. This feature of the work of the Association was curtailed, however, because of the limitations of the institution's budget for the year.

Action of the Executive Council on various recommendations made by the Secretary for the next year, and other details of the annual meeting will be published in the February INFANTRY JOURNAL.

Hundred Per Cent Supporters

AS previously announced, we present a list of Infantry regiments and branch organizations which recently reached the goal in paid-up membership in the Infantry Association of 100 per cent of the officers present with the regiment or within the jurisdiction of the branch organizations.

100 PER CENT

Tank School—Col. C. H. Miller, Commandant; Col. O. S. Eskridge, Asst. Comdt.

Fort Brady, Mich. (2d Inf.)—Pres.: Lieut. Col. A. E. Deitsch; Sec.: 1st. Lieut. Henry W. Isbell.

Fort George Wright, Wash. (4th Inf.)—Pres.: Col. Henry A. Ripley; Sec.: Capt. W. L. Clemensen.

Fort Missoula, Mont. (4th Inf.)—Pres.: Capt. Edwin E. Elliott; Sec.: 1st. Lieut. E. M. Sutherland, (Maj. J. M. Lockett, Comdg.)

Fort Lawton, Wash. (4th Inf.)—Lieut. Col. H. G. Davids, Comdg.

5th Infantry (Portland, Me.)—Regtl. Rep.: Maj. Albert T. Rich. (Col. John W. Wright, Comdg.)

6th Infantry (Jefferson Bks., Mo.)—Rep.: Capt. G. L. Hartman. (Col. M. N. Falls, Comdg.)

7th Infantry (Vancouver Barracks, Wash.)—Pres.: Col. F. J. Morrow; Sec.: Capt. T. A. Harris.

Fort Screven, Ga. (8th Inf.)—Pres.: Col. R. J. Burt; Sec.: Capt. Maximilian Clay.

11th Infantry (Fort Benj. Harrison, Ind.)—Pres.: Lieut. Col. E. J. Nowlen; Sec.: Capt. E. A. Green. (Col. G. D. Freeman, Comdg.)

13th Infantry (Fort Andrews, Mass.)—Pres.: Col. W. K. Naylor; Sec.: Capt. R. G. Lehman.

17th Infantry (Fort Crook, Neb.)—Pres.: Col. C. A. Trott; Sec.: Capt. J. B. Harvey.

Fort Des Moines, Ia. (17th Inf.)—Rep.: 1st Lieut. R. F. Ennis. (Maj. E. J. Oliver, Comdg.)

20th Infantry (Fort Sam Houston, Tex.)—Pres.: Col. Fred L. Munson; Sec.: Capt. Carl C. Anderson.

Fort Sill, Okla. (3d Bn., 20th Inf.)—Maj. P. W. Newgarden, Comdg. Bn.

21st Infantry (Schofield Bks., T. H.)—Pres.: Col. Ralph McCoy; Sec.: Capt. G. W. Lester.

25th Infantry (Camp Stephen D. Little, Ariz.)—Pres.: Maj A. H. Bailey; 1st V.-Pres.: Capt. John H. Nankivell; 2d V.-Pres.: Capt. Edwin H. Randle; Sec.: 1st Lieut. E. M. Byles. (Col. A. J. Dougherty, Comdg.)

26th Infantry (Plattsburg Bks., N. Y.)—Pres.: Col. John H. Hughes; Sec.: Maj. Vernon Evans.

Fort Douglas, Utah (38th Inf.)—Pres.: Col. W. B. McCaskey; V.-Pres.:

Maj. J. C. Thomas; Sec.-Treas.: Capt. C. J. Allen.

Fort Logan, Col. (38th Inf.)—Pres.: Lieut. Col. Lochlin W. Caffey; Sec.: Capt. Maurice Rose.

45th Infantry (Manila, P. I.)—Pres.: Col. E. W. Tanner; Sec.: Capt. J. C. McGovern.

57th Infantry (Manila, P. I.)—Pres.: Col. C. C. Todd; V.-Pres.: Maj. John H. Caron; Sec.: Capt. A. J. McFarland.

APPROACH 100 PER CENT

A number of other of the branches nearly approach the 100 per cent mark. These are:

1st Infantry,
3rd Infantry,
Fort Wayne, Mich. (2d Inf.),
Fort Moultrie, S. C. (8th Inf.),
10th Infantry,
19th Infantry,
22d Infantry,
24th Infantry,
Madison Barracks, N. Y. (28th Inf.),
Fort Niagara, N. Y. (28th Inf.),
29th Infantry,
30th Infantry,
34th Infantry.

The difficulty of maintenance of full membership at all times, encountered by the national headquarters and the representatives in the field, is that expiration of dues occur from month to month. We expect to publish from time to time the list of those regiments or branch organizations which reach the goal of complete paid-up membership.

The Executive Council of the Association is very grateful to the officers concerned for their hearty cooperation.

What the Branches are Doing

THE Washington Branch will have the first of its winter series of luncheons on January 14, at 12:30 p. m., in honor of the Chief of Staff, Maj. Gen. Charles P. Summerall. A notice of the place and other details will be furnished members by the local secretary. Anyone knowing of members temporarily in Washington on the date of the luncheon should send their names to Major R. E. O'Brien, office Chief of Infantry, so they can be included in the function.

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BRANCH ASSOCATIONS are encouraged to include Infantry officers of nearby localities in their organization. Contacts made with National Guard and Reserve officers of Infantry through the means of the local branches are most desirable.

A MEMBER WRITES asking whether the Infantry has a coat-of-arms and a motto. The only emblem the Infantry branch has is the cross-rifles. The motto of the Infantry School is "Follow Me," which words are included on the official shield. The Infantry Association coat-of-arms and the motto are explained on the following page.

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THE WASHINGTON BRANCH publishes monthly a bulletin giving names of Infantry officers confined to Walter Reed Hospital to encourage visits by members of the Branch.

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BRANCH SECRETARIES are especially requested to send to the Infantry Association any clippings on Infantry publicity. A file of this material is being kept. Some of the items may be of

value for publication in the INFANTRY JOURNAL. We would appreciate like cooperation from all members.

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THE FORT LEAVENWORTH BRANCH held an Infantry tea at the post at the beginning of the school year.

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THE MARCH NUMBER of the INFANTRY JOURNAL will be a special Philippine Number. There will be included material of special value to any officer contemplating duty in the Islands.

ⓘ

THE 21ST INFANTRY has joined the list of regiments that has 100 per cent subscription to the INFANTRY JOURNAL among the companies.

Infantry Association's Coat of Arms

ON the front cover of this New Year's issue of the INFANTRY JOURNAL is reproduced the coat-of-arms of the United States Infantry Association.

Its symbolism indicates the antiquity of Infantry by the Macedonian and Roman soldiers; its skill, training and discipline by the javelin, bow, cross-bow, arquebus, and cross rifles, the evolution of its arms; and by its crest the crown which by general acclaim is rightfully accorded to the "Queen of Battles."

The description is as follows:

Shield: On a chief azure Infantry muskets saltair sable; in base quarterly or and argent charged with a javelin, a bow, a cross-bow, and an arquebus sable.

Crest: On a queen's coronet or an eagle displayed.

Supporters: A soldier of the Macedonian Phalanx and of the Roman Legion.

Motto: "L'Infanterie la Reine des Battailles."

The purpose of regimental coats-of-arms is to inspire a love of the regiment by a knowledge of its history. The Infantry branch of our Army should receive inspiration and the esprit that makes for cooperation from symbolism of the arms long ago adopted by the Infantry Association.

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It Takes Only One to Make A Fight

It does not take two people to make a fight if one of the two is intent on fighting. Supine submission on the part of a person attacked does not save him from aggression or from injury and possible destruction. The reputation for unwillingness to stand up for his rights may invite attack and cause him great harm. These are truisms so obvious that it would seem unnecessary to repeat them. But they seem to be entirely beyond the comprehension of the pacifist.—*National Republic.*

THE UNITED STATES INFANTRY ASSOCIATION

"The object of the Association shall be to promote the efficiency of the Infantry arm of the military service of our country by maintaining its best standards and traditions, by fostering esprit de corps, by the dissemination of professional knowledge, and by exchange of ideas as to the utilization of such knowledge with particular reference to the rôle of Infantry in modern war."
—Article III of the Constitution.

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CONDITIONS OF MEMBERSHIP

All commissioned officers in good standing, or former commissioned officers of honorable record of the regular or volunteer military or naval service, including National Guard and Officers' Reserve Corps, are eligible for membership in the Association. Membership dates from the first of month following the date of election.

Annual dues, and subscription to the INFANTRY JOURNAL, $3.00 a year, payable in advance.

All communications should be addressed to the Secretary, the United States Infantry Association, Infantry Building, Washington, D. C. Cable address: Infantry, Washington.

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$1,500 Prize for Music Suitable for An Infantry Song

The INFANTRY JOURNAL announces a contest for the music for "The Infantry Song" with a prize of $1,500.00 cash for the entry adjudged the winner.

The Infantry has for years felt the need of a song that it can call its own. Many attempts have been made to produce it, but none has been successful.

The largest body of Infantrymen ever assembled in the history of America was demobilized a few years ago. Those millions of Doughboys had a spirit that has been nurtured in hearts of American Infantryman for 150 years; that spirit needs to be translated into music and song for the Infantry of the present and of the future.

As expressed by Sergeant Albert S. Dowling, 7th Engrs., in his verses on the endeavor to produce an Infantry song:

They're goin' to hav' 'em a he-man's song
For th' good old Infantry;
A song to sound through th' halls of time;
An' give to posterity,
The sturdy souls, an' the spirit bold,
An' th' brave an' honest hearts of gold
Of th' Fightin' Infantry.

GENERAL CONDITIONS OF THE CONTEST:

1. The contest is opened November 1, 1926, and is to be closed at noon on July 1, 1927.

2. The object of the contest will be to produce original music, in march time, that will be suitable for a song (with chorus) for the Infantry. The music to be simple, catchy and capable of being learned readily by the rank and file, and at the same time that will be stirring and full of pep, but free from jazz.

3. The prize of $1,500 will be paid to the contestant whose music is judged by a committee of judges appointed by the Executive Council of the Infantry Association as appropriate for the Infantry Song, subject to the approval of the Council. The Council reserves the right to reject any and all manuscripts entered in the contest.

4. There will be no limit on the number of entries submitted by any contestant. Citizens of the United States, or those who have declared their intentions to become citizens, will be eligible.

5. The manuscripts shall be legibly written. The melody is to be arranged for piano or for band. Words suggested for the song may accompany the music.

6. Contestant will be required to subscribe to all conditions of the contest on approved form, furnished upon request by the INFANTRY JOURNAL, before entry or entries will be accepted.

7. The music judged the winner of the contest will become the property of the U. S. Infantry Association, which reserves all rights to publication. No general distribution or sale will be made until suitable words for the music, approved by the Executive Council, shall be announced. A royalty will be paid the composer.

8. The usual rules concerning nom de plume will be adhered to. Only the name of the successful competitor will be published.